

MHC-G500

SERVICE MANUAL

US Model

- MHC-G500 is composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR MHC-G500

Component \ System	MHC-G500
Tuner / CD Player / Amplifier / Cassette Deck	HCD-H305G
Speaker System	SS-H501

PARTS LIST (Accessories & Packing Materials)

NOTE :

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Part No.	Description
1-473-038-11	COMMANDER, STANDARD (RM-S44)
1-501-374-11	ANTENNA, LOOP
1-501-659-11	ANTENNA (FM)
3-798-698-21	MANUAL, INSTRUCTION (ENGLISH)
4-941-762-11	COVER (MLY), BATTERY (For RM-S44)

Part No.	Description
* 4-971-217-01	CHUSHION (SS-H501)
* 4-972-971-01	CHUSHION (FRONT) (HCD-H305G)
* 4-972-972-01	CHUSHION (REAR) (HCD-H305G)
* 4-974-617-01	INDIVIDUAL CARTON

MINI HI-FI COMPONENT SYSTEM

SONY®

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

HCD-H305G

SERVICE MANUAL

US Model



- HCD-H305G is the tuner, deck, CD and amplifier section in MHC-G500.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	HCD-D260
	CD Mechanism Type	CDM33B-5BD19FK
	Base Unit Name	BU-5BD19
Tape deck Section	Model Name Using Similar Mechanism	HCD-H501
	Tape Transport Mechanism Type	TCM-180VW-H13

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads both channels driven, from 40 – 20,000 Hz; rated 12 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

CD player section

System	Compact disc digital audio system
Laser	Semiconductor laser
Wavelength	780 – 790 nm
Frequency response	20 Hz – 20 kHz
Signal-to-noise ratio	More than 95 dB
Dynamic range	More than 90 dB

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	AM: 530 – 1,710 kHz (with the AM tuning interval set at 10 kHz) 531 – 1,710 kHz (with the AM tuning interval set at 9 kHz)
Antenna	AM loop antenna External antenna terminals
Intermediate frequency	450 kHz

– Continued on page 2 –

COMPACT DISC DECK RECEIVER

SONY®



Amplifier section

Music power output
12 + 12 watts (6 ohms at 40 Hz –
20 kHz, 0.9% THD)

Inputs

AUX IN (phono jack):
sensitivity 250 mV,
impedance 47 kilohms

Outputs

PHONES :
accepts headphones of 8 ohms
or more.

SPEAKER:
accepts speakers of 6 to 16
ohms.

Tape player section

Recording system

4-track 2-channel stereo

Frequency response

(DOLBY NR OFF)
40 – 13,000 Hz (± 3 dB),
using Sony TYPE I cassette
40 – 14,000 Hz (± 3 dB),
using Sony TYPE II cassette

Wow and flutter

0.1% WRMS ± 0.3% (DIN)

Speaker (SS-H501)

Speaker system 2-way

Speaker units

Woofer: 14 cm dia., cone type
Tweeter: 5 cm dia., cone type

Nominal impedance 6 ohms

Maximum power input
80 watts

Dimensions

Approx. 195 x 325 x 250 mm (w/h/d)
(7 3/4 x 12 7/8 x 9 7/8 inches)

Mass Approx. 3.3 kg
(7 lb 4 oz) net per
speaker

Supplied accessories

AM loop antenna (1)
Remote RM-S44 (1)
Sony SUM-3 (NS) batteries (2)
FM antenna (1)
Speaker cords (2)

General

Power requirements
120 V AC, 60 Hz

Power consumption
80 watts

Dimensions

Approx. 280 x 325 x 335 mm (w/h/d)
(11 1/8 x 12 7/8 x 13 1/4 inches)

Mass Approx. 10 kg
(22 lb 1 oz)

Design and specifications are subject to
change without notice.

SAFETY CHECK-OUT

After correcting the original service problem,
perform the following safety check before releasing
the set to the customer:

Check the antenna terminals, metal trim, "metallized"
knobs, screws, and all other exposed metal parts for
AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to
earth ground and from all exposed metal parts to any
exposed metal part having a return to chassis, must
not exceed 0.5 mA (500 microamperes). Leakage
current can be measured by any one of three
methods.

1. A commercial leakage tester, such as the
Simpson 229 or RCA WT-540A. Follow the
manufacturers' instructions to use these instru-
ments.
2. A battery-operated AC milliammeter. The Data
Precision 245 digital multimeter is suitable for
this job.
3. Measuring the voltage drop across a resistor by
means of a VOM or battery-operated AC volt-
meter. The "limit" indication is 0.75 V, so
analog meters must have an accurate low-
voltage scale. The Simpson 250 and Sanwa
SH-63Trd are examples of a passive VOM that
is suitable. Nearly all battery operated digital
multimeters that have a 2 V AC range are
suitable. (See Fig. A)

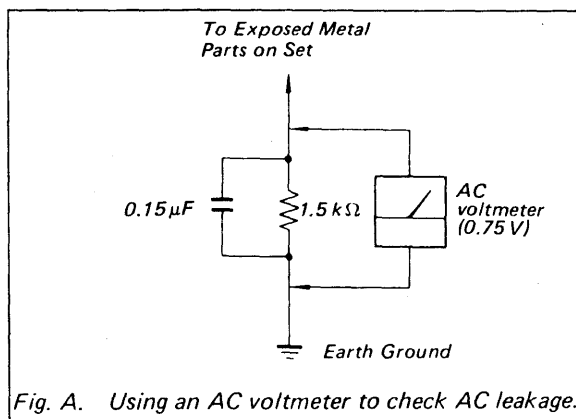


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED
LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS
AND IN THE PARTS LIST ARE CRITICAL TO SAFE
OPERATION. REPLACE THESE COMPONENTS WITH
SONY PARTS WHOSE PART NUMBERS APPEAR AS
SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUB-
LISHED BY SONY.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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SECTION 1 SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

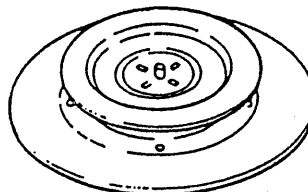
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig : X-4918-255-1



SECTION 2 GENERAL

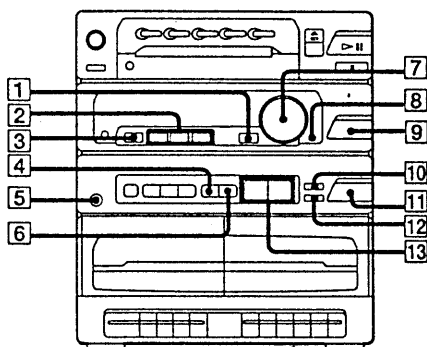
This section is extracted from instruction manual.

Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

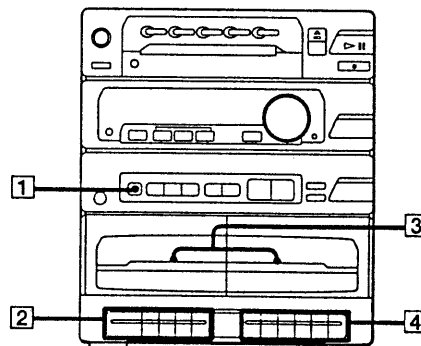
Front Panel

Amplifier/Tuner section



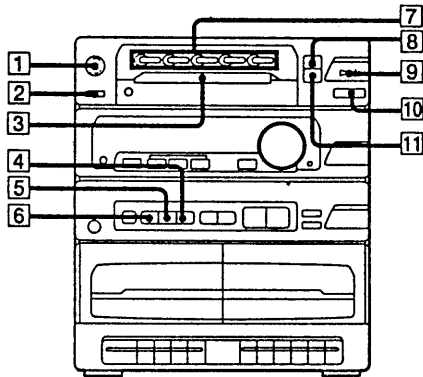
- 1 DBFB button
- 2 PRESET EQUALIZER buttons*
- 3 DISPLAY button
- 4 TUNING MODE button
- 5 PHONES jack
- 6 MONO button
- 7 VOLUME control
- 8 CLOCK SET button
- 9 FUNCTION button
- 10 TUNER MEMORY button
- 11 TUNER/BAND button
- 12 ENTER/NEXT button
- 13 MULTI CONTROLLER (◀◀/▶▶) buttons

Tape player section



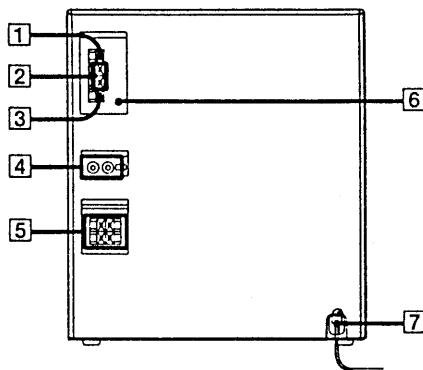
- 1 DOLBY NR button*
- 2 Tape operating buttons (for deck A)
 - ▷ (play)
 - ◀◀ (rewind)
 - ▶▶ (fast forward)
 - ▲ (stop, eject)
 - || (pause)
- 3 Cassette compartments
- 4 Tape operating buttons (for deck B)
 - (rec)
 - ▷ (play)
 - ◀◀ (rewind)
 - ▶▶ (fast forward)
 - ▲ (stop, eject)
 - || (pause)

CD player section



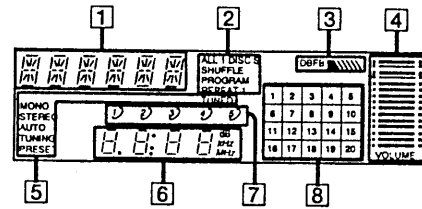
- 1 SYSTEM POWER switch
- 2 SLEEP button
- 3 Disc tray
- 4 PROGRAM button
- 5 SHUFFLE button
- 6 CONTINUE button
- 7 DISC 1 - 5 buttons*
- 8 OPEN/CLOSE $\triangle$ button
- 9 $\triangleright \parallel$ (play/pause) button
- 10 $\blacksquare$ (stop) button
- 11 DISC SKIP button

Rear Panel



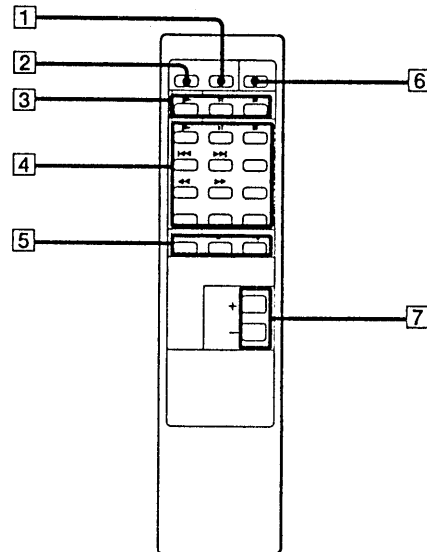
- 1 FM 75 Ω terminal
- 2 $\hbar$ earth terminal
- 3 AM terminal
- 4 AUX IN jacks
- 5 SPEAKER connectors
- 6 Screw clamp
- 7 AC power cord

Display Window



- 1 Function indication
- 2 CD play mode indications
- 3 DBFB indications
- 4 Volume indication
- 5 Tuner indications
- 6 Frequency/time indications
- 7 Disc tray indications
- 8 Music calendar

Remote (RM-S44)

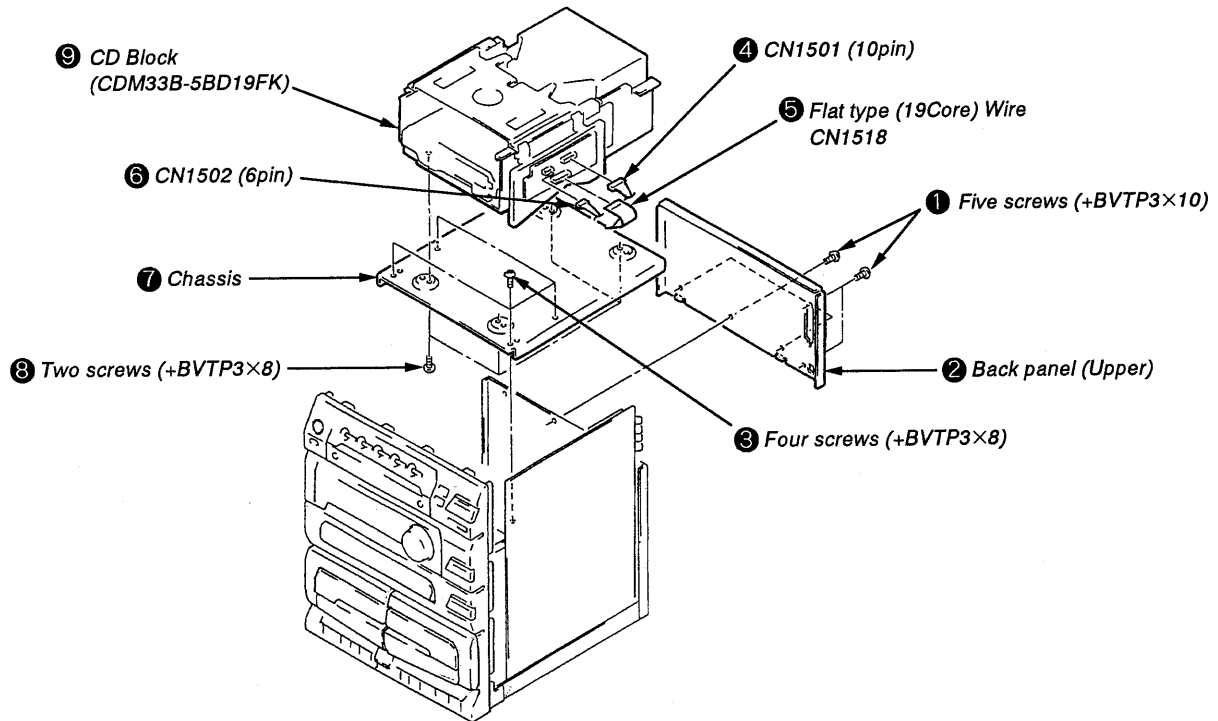


- 1 SLEEP button
- 2 FUNCTION button
- 3 MD recorder operating buttons
 - $\triangleright$ (play)
 - $\parallel$ (pause)
 - $\blacksquare$ (stop)
- 4 CD player operating buttons
 - $\triangleright$ (play)
 - $\parallel$ (pause)
 - $\blacksquare$ (stop)
 - $\ll / \gg$ (AMS)
 - $\ll / \gg$ (rewind/fast forward)
 - DISC SKIP button
 - REPEAT button
 - EDIT button
 - CHECK button
 - CLEAR button
- 5 Tuner operating buttons
 - BAND button
 - PRESET (+/-) button
- 6 SYSTEM POWER button
- 7 VOLUME (+/-) buttons

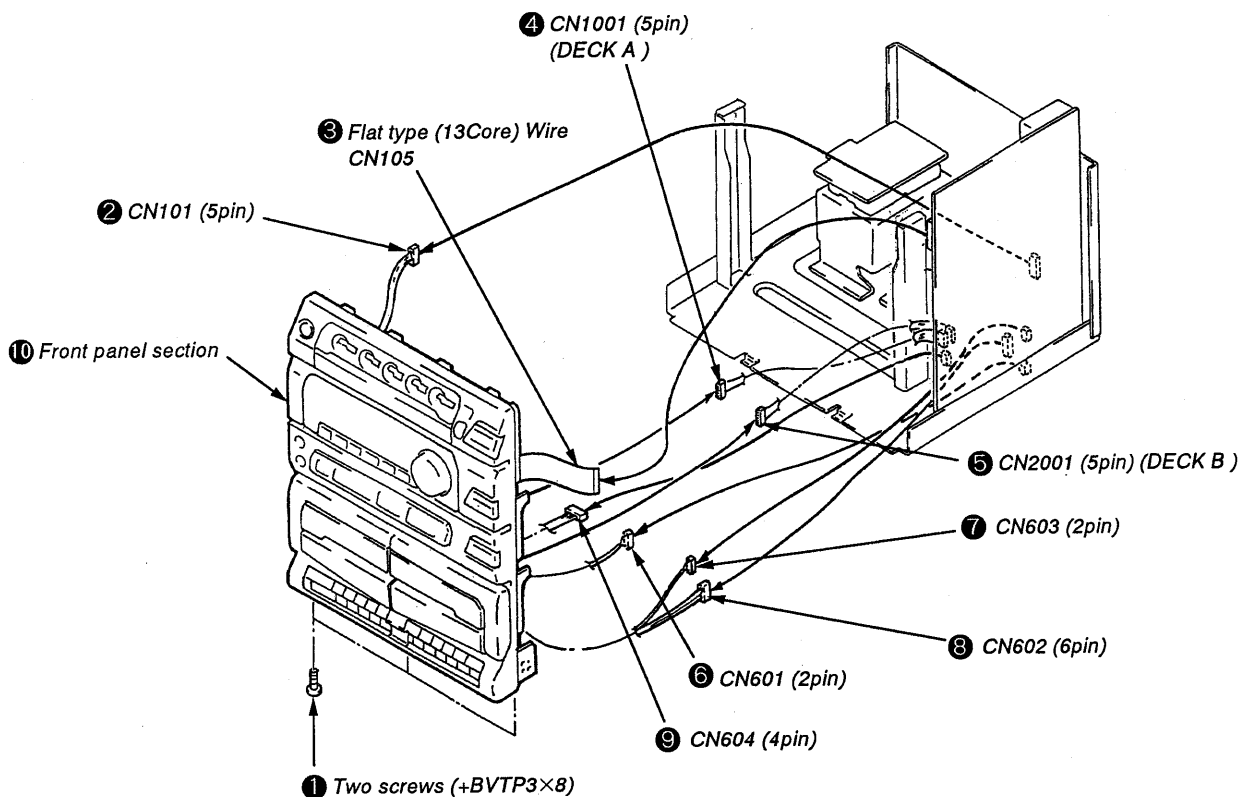
SECTION 3 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

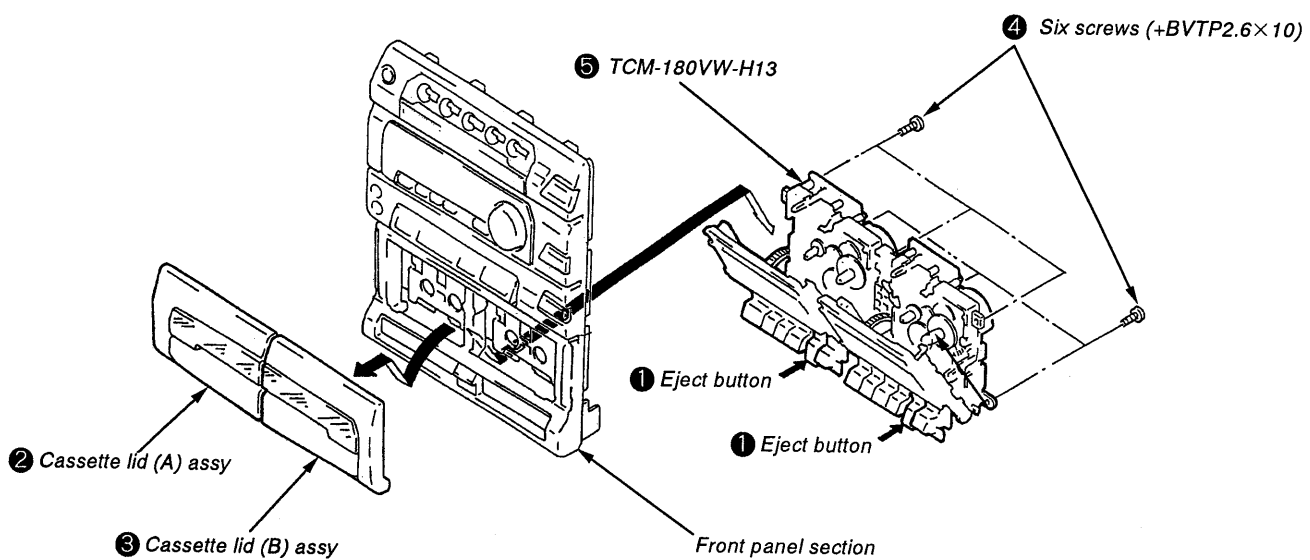
3-1. CD MECHANISM REMOVAL



3-2. FRONT PANEL REMOVAL



3-3. TC MECHANISM REMOVAL



SECTION 4 ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

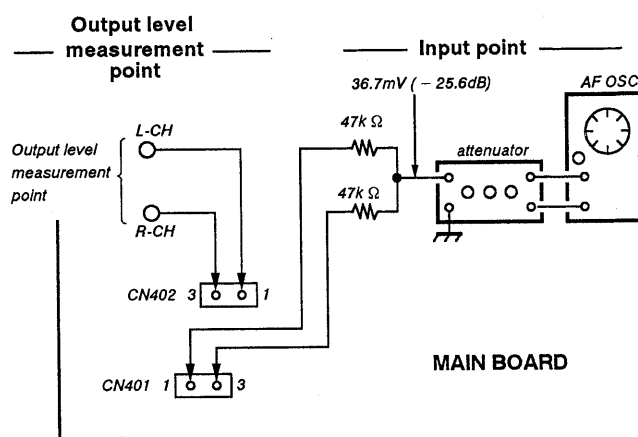
• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	30 to 70g•cm (0.42 – 0.97 oz•inch)
Forward Back Tension	CQ-102C	1.5 to 5.5g•cm (0.021 – 0.076 oz•inch)
FF, REW	CQ-201B	more than 63g•cm (0.88 oz•inch)

4-2. ELECTRICAL ADJUSTMENTS

DECK SECTION

1. The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch : OFF
FUNCTION button : CD
3. Deck section electrical adjustments are made in test mode by pressing TUNER/BAND, DISPLAY, and POPS at the same time.
4. Input point and output level measurement point.



• Test Tape

Tape	Contents	Use
P-4-A100	10kHz, -10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

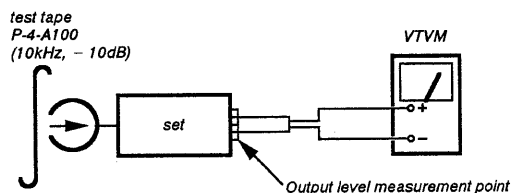
$$0 \text{ dB} = 0.775 \text{ V}$$

Record/Playback Head Azimuth Adjustment

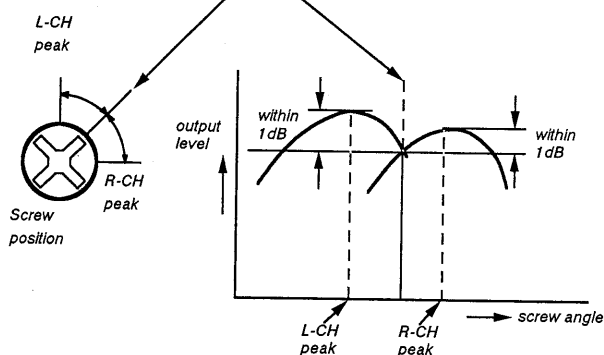
DECK A DECD B

Procedure :

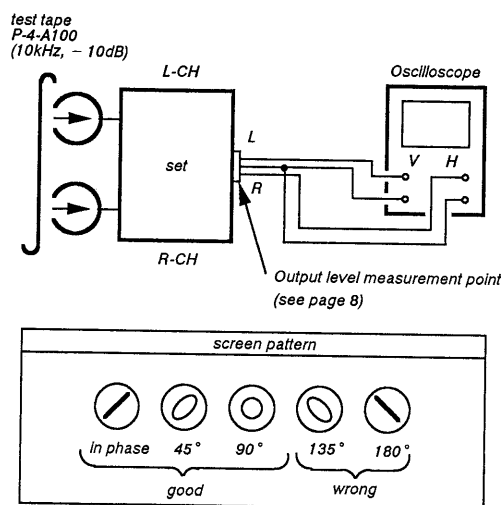
1. Forward Playback mode
Reverse Playback mode



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



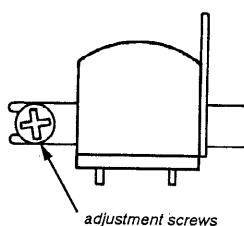
3. Playback Mode



- Change the review playback mode and repeat the steps 1 to 3.
- After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location :

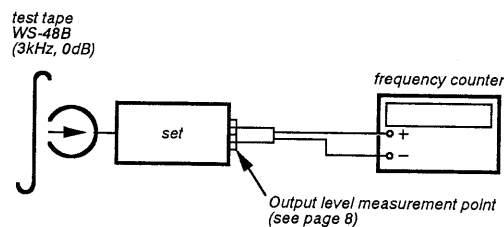
- record/playback head (Deck A and Deck B) –



Tape Speed Adjustment **DECK A** **DECK B**

Procedure :

Mode : Playback



- Set to FWD playback mode.
- Adjust RV670 so that the frequency counter reading becomes $3,000 \pm 15\text{Hz}$.

Frequency difference between the beginning and the end of the tape should be within $\pm 3\%$.

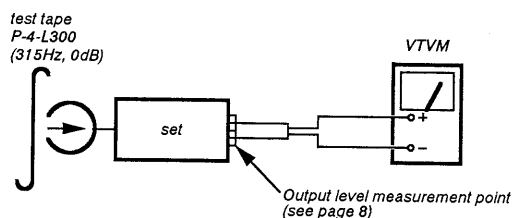
Adjustment Location : MAIN board.

(see page 10)

Playback Level Adjustment **DECK A** **DECK B**

Procedure :

Mode : Playback



Deck A is RV601(L-CH) and RV651(R-CH), deck B is RV602 (L-CH) and RV652 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level :

LINE OUT level : $-7.5 \pm 0.5\text{dB}$ (0.31 to 0.35V)

Level Difference between Channels : within 0.5dB

Confirm the DOLBY OUT level does not change in playback mode while changing the mode from playback to stop several times.

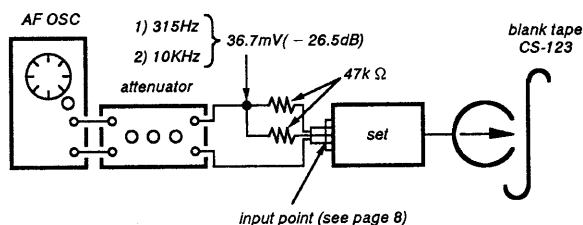
Adjustment Location : MAIN board.

(see page 10)

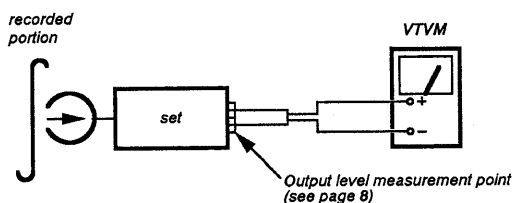
Record Bias Adjustment **DECK B**

Procedure :

1. Record mode



2. Playback mode



3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjustment the RV620 (L-CH) and RV630 (R-CH) to repeat step 1 and 4.

Adjustment level : Playback output of 315Hz to playback output of 10kHz : -0.5dB to 0.5dB .
(-1.3 to 1.3mV)

Adjustment Location : MAIN board.

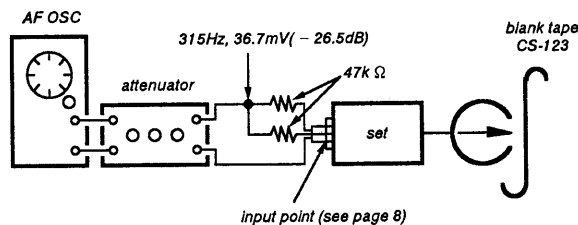
Adjustment Location :

Record Level Adjustment **DECK B**

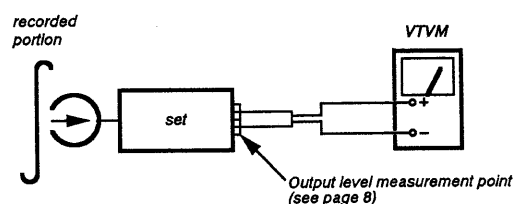
FUNCTION button : CD

Procedure :

1. Record mode



2. Playback mode

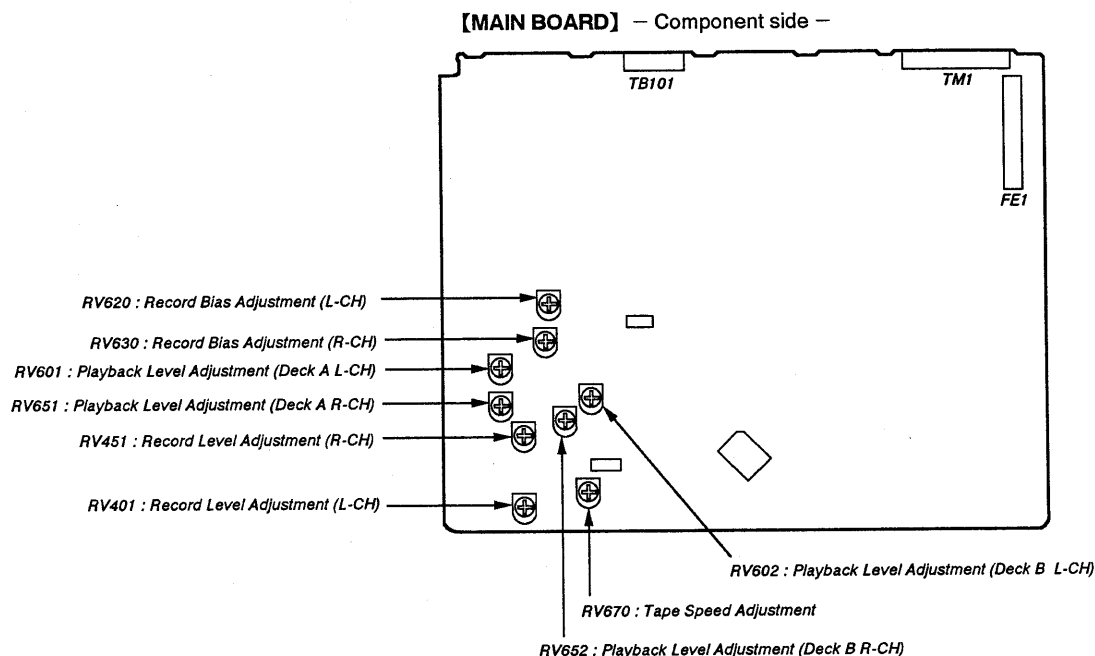


3. Confirm playback the signal recorded in step become adjustment level as follows.
4. If these levels do not adjustment level, adjustment the RV401(L-CH) and RV451 (R-CH) to repeat step 1 and 4.

Adjustment Level :

DOLBY OUT level : $-22.5\text{dB} \pm 0.5\text{dB}$ (54.9 to 61.6mV)

Adjustment Location : MAIN board



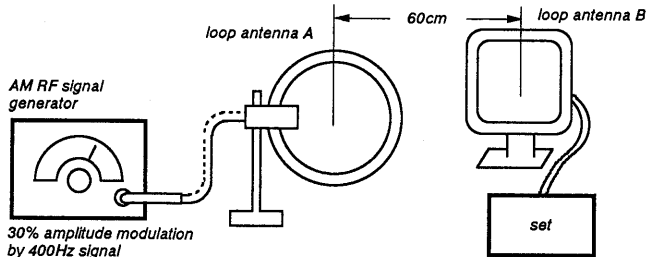
TUNER SECTION

Note. 1 : The adjustment should be performed in the publication.
(AM → FM)

Note. 2 : As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

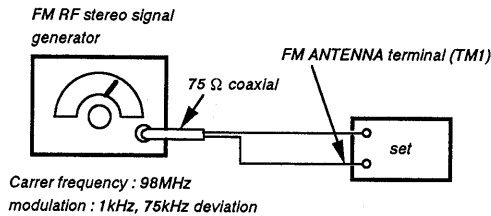
AM Section Adjustment

Setting :



FM Section Adjustment

Setting :



AM Tuned Indication Lighting Level Adjustment

Band : AM

Procedure :

1. Set loop antenna A so that the loop antenna B input level becomes 3.2mV (70dB μ)
2. Tune the set to 1,000kHz.
3. Adjust RV41 so that the **TUNED** light up.
4. Confirm that the **TUNED** light off with AM RF SG output level set at 0dB μ .
5. Confirm the FM tuned indication lighting level and adjust if necessary.

Adjustment Location : Main board

Adjustment Location :

FM Tuned Indication Lighting Level Adjustment

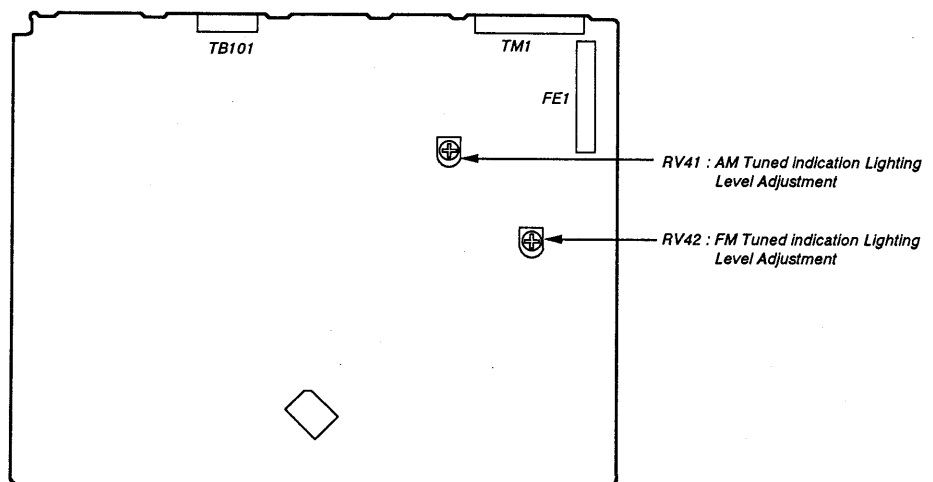
Band : FM

Procedure :

1. Supply a 11.2 μ V (21dB μ) 98MHz signal to the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV42 so that the **TUNED** light up.
4. Confirm that the **TUNED** light off with FM RF signal generator output level set at 16dB μ .

Adjustment Location : Main board

[MAIN BOARD] — Component side —



CD SECTION

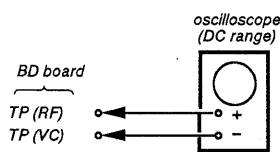
Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10M Ω impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

Focus Bias Adjustment

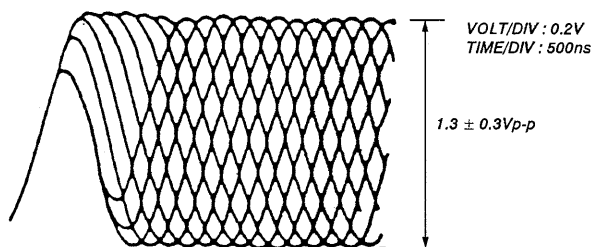
This adjustment is to be done when the optical block is replaced.

Adjustment procedure :



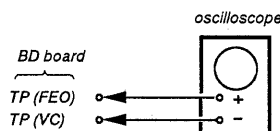
1. Connect oscilloscope to test point TP (VC) and TP (RF) on BD board.
2. Turned power switch ON. (Stop mode)
3. Put disc (YEDS-18) in and press the ► button.
4. Press the DISPLAY/ENTER button. (Tracking servo ON)
5. Adjust RV101 so that the oscilloscope waveform is as shown in the figure below (eye pattern).
A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
6. Release test mode after adjustment is completed.

● RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

S-Curve Check



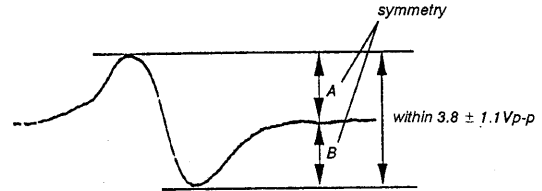
Procedure :

1. Connect oscilloscope to test point TP (FEO) and BD board.
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc

table is moving in and out.)

5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within $3.8 \pm 1.1Vp-p$.

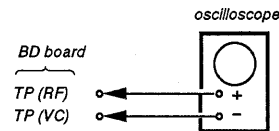
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : ● Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
● Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



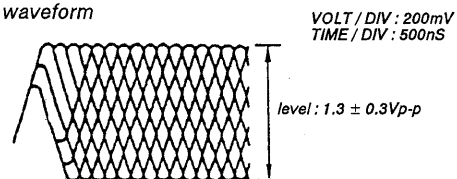
Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

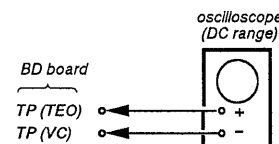
Note :

Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

RF signal waveform



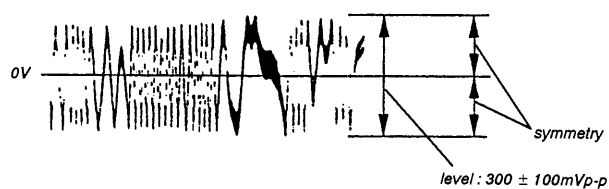
E-F Balance Check



Procedure :

1. Ground main board IC101 pin 56 with the lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse waveform



6. Remove the lead wire connected in step 1.

Focus/Tracking Gain

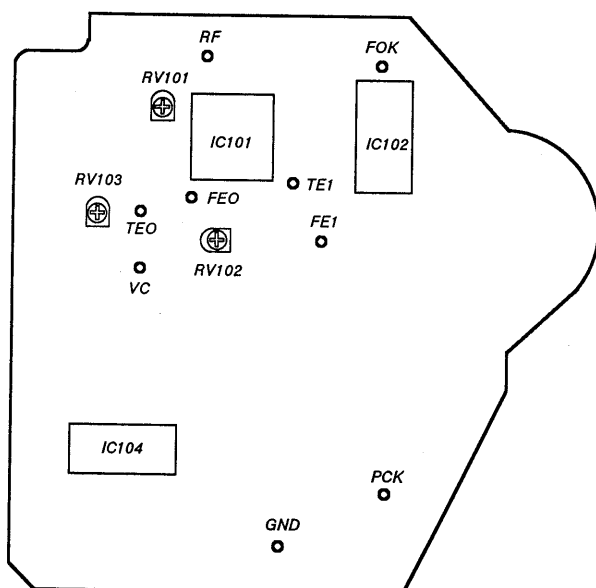
This gain has a margin, so even if it is slightly off. There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location :

[BD BOARD] – Component side –



SECTION 5

EXPLANATION OF IC TERMINALS

IC101 TMP87CP64F-6254 (MAIN BOARD)

Pin No.	Pin name	I/O	Description				
1	V _{SS}	—	GND				
2	X OUT	O	}	Main system clock. (8MHz)			
3	X IN	I					
4	RESET	I	Reset signal input terminal.				
5	X OUT	O	}	Sub system clock. (32.768kHz)			
6	X IN	I					
7	GND (TEST)	—	GND				
8	AC OUT	I	MICON AC DET.				
9	COUNT SW	I	COUNT input DET terminal.				
10	INIT SW	I	INIT switch input terminal.				
11	DISC SENS	I	DISC DET terminal.				
12	MID SENS	I	MID DET terminal.				
13	CD XRST	O	CD Reset output. “L” : RESET				
14	POWER	O	Power on output. “L” : ON				
15	TA MUTE	O	AMP Mute output. “L” : MUTE				
16	MPX	O	MPX Control output.				
17	KEYCON LATCH	—	Not used. (OPEN)				
18	VOL LATCH	O	Latch output to volume control. (TC9210P)				
19	KEY CON	—	Not used. (OPEN)				
20	K. PON	—	Not used. (OPEN)				
21	FUNC A	O	}	FUNCTION		FUNC A	FUNC B
22	FUNC B	O		ST		L	L
				CD		L	H
				TC		H	L
				AUX		H	H
23	FUNC C	—	Not used. (OPEN)				
24	GEQ. LATCH	O	Latch output to gray control. (M62423FP)				
25	RDS. INT	—	Not used. (OPEN)				
26	SCOR (DSP)	I	Sub-code sync SO+SI detection input from DSP. (CXD2507AQ)				
27	SENS	I	SENS input from DSP. (CXD2507AQ)				
28	CD POWER	O	Power on output. “H” : ON				
29	CDG LATCH	—	Not used. (OPEN)				
30	DBFB1 – 2	O	DBFB Select output. “H” : DBFB LOW “L” : DBFB HIGH				
31	ST MUTE	O	TUNER MUTE Output.				
32	ST CE	O	Chip enable output to tuner PLL IC (LC72130)				
33	STEREO	I	FM/AM Stereo identification. “L” : STEREO				
34	TUNED	I	FM/AM Tuning identification. “L” : TUNING				
35	SQ-RDS-CLK	O	Sub-code Q data scanning clock output to DSP (CXD2507AQ), RDS clock output.				
36	SQ-RDS-DI	I	Sub-code Q data input from DSP (CXD2507AQ), RDS data input.				
37	RDS-RESET	O	RDS Reset signal output.				
38	CLK	O	System clock output.				
39	D. IN	I	Serial data input from tuner.				
40	D. OUT	O	Serial data (COMN) output.				
41	TABLE SENS	—	Not used. (OPEN)				
42	REQ GM	I	Data transmission request input from system control.				

Pin No.	Pin name	I/O	Description
43	REQ MG	O	Data transmission request output to system control.
44	CLK MG	O	Clock output for communications with system control.
45	D. GM	I	Serial data input form system control.
46	D. MG	O	Serial data output to system control.
47	RDY	I/O	System control Ready signal input/output. "L" : READY
48	VAREF	—	Power supply. (+5V)
49	VASS	—	GND
50	Vss	—	GND
51	VDD	—	Power supply (+5V)
52	URGENT. SIG	—	Not used. (+5V)
53	URGENT. STBY	—	Not used. (OPEN)
54	BUG Y/ $\bar{N}$	—	Not used. (OPEN)
55	ADJUSTOR	—	Not used. ("H" LEVEL)
56	ADJUST2	—	Not used. ("H" LEVEL)
57	MAGIC SPEED	—	Not used. ("H" LEVEL)
58	SPEC	—	Not used. ("H" LEVEL)
59	DIST	—	Not used. ("H" LEVEL)
60	SPEED	—	Not used. ("H" LEVEL)
61	BREAK	—	Not used. ("H" LEVEL)
62	B-PLAY	I	Deck-B PLAY Switch input. "H" : PLAY
63	B-SHUT	—	Not used. (+5V)
64	B-HALF	—	Not used. (+5V)
65	A-SHUT	—	Not used. (+5V)
66	A-PLAY	I	Deck-A PLAY Switch input. "H" : PLAY
67	B-REC	I	Deck-B HALF SW input.
68	CAPM H/L	—	Not used. (OPEN)
69	CAPM ON/OFF	—	Not used. (OPEN)
70	TRIG H/L	—	Not used. (OPEN)
71	B TRG	—	
72	A TRG	—	
73	RELAY	O	Control output to REC/PB select switch. (IC603)
74	A/B	O	Dolby IC PB input Deck A/B select output. "L" : A, "H" : B
75	NORM/HIGH	—	Not used. (OPEN)
76	BIAS ON/OFF	O	BIAS Oscillation ON/OFF control. "H" : ON
77	RM ON/OFF	O	REC Mute output. "L" : MUTE
78	REC/PB	O	DOLBY IC REC/PLAY Select output. "H" : REC
79	NR	O	DOLBY ON/OFF Control output. "H" : ON
80	LM	O	LINE Mute output. "L" : MUTE
81	PASS	O	PASS Amplifier switch output to DOLBY IC. (IC401)
82	CDG. MUTE	—	Not used. (OPEN)
83	UP MOTOR	O	UP/DOWN motor control.
84	DOWN MOTOR	O	UP/DOWN motor control.
85	TABLE R	—	Not used. (OPEN)
86	TABLE L	—	Not used. (OPEN)
87	LOAD OUT	O	Loading motor (M903) Load out output.
88	LOAD IN	O	Loading motor (M903) Load in output.
89	DF-LATCH	O	Latch output to digital filter. (PCM1701U)

Pin No.	Pin name	I/O	Description
90	XLT	O	Serial data latch output to DSP. (CDX2507AQ)
91	FOCUS SW	O	High-region gain down output to focus servo. (CXA1782BQ)
92	HIGH DUBB	—	Not used. (+5V)
93	TEST 1	—	Not used. ("H" LEVEL)
94	OUT SW	I	CD Tray output detection input.
95	IN SW	I	CD Tray input detection terminal.
96	UP SW	—	Not used. (GND)
97	PANEL SW	—	5CD PANEL SW DET terminal.
98	STOCK SW	—	Not used. ("H" LEVEL)
99	MID SW	—	Not used. ("H" LEVEL)
100	V _{DD}	—	Power supply. (+5V)

IC501 CXP82612-006Q (PANEL BOARD)

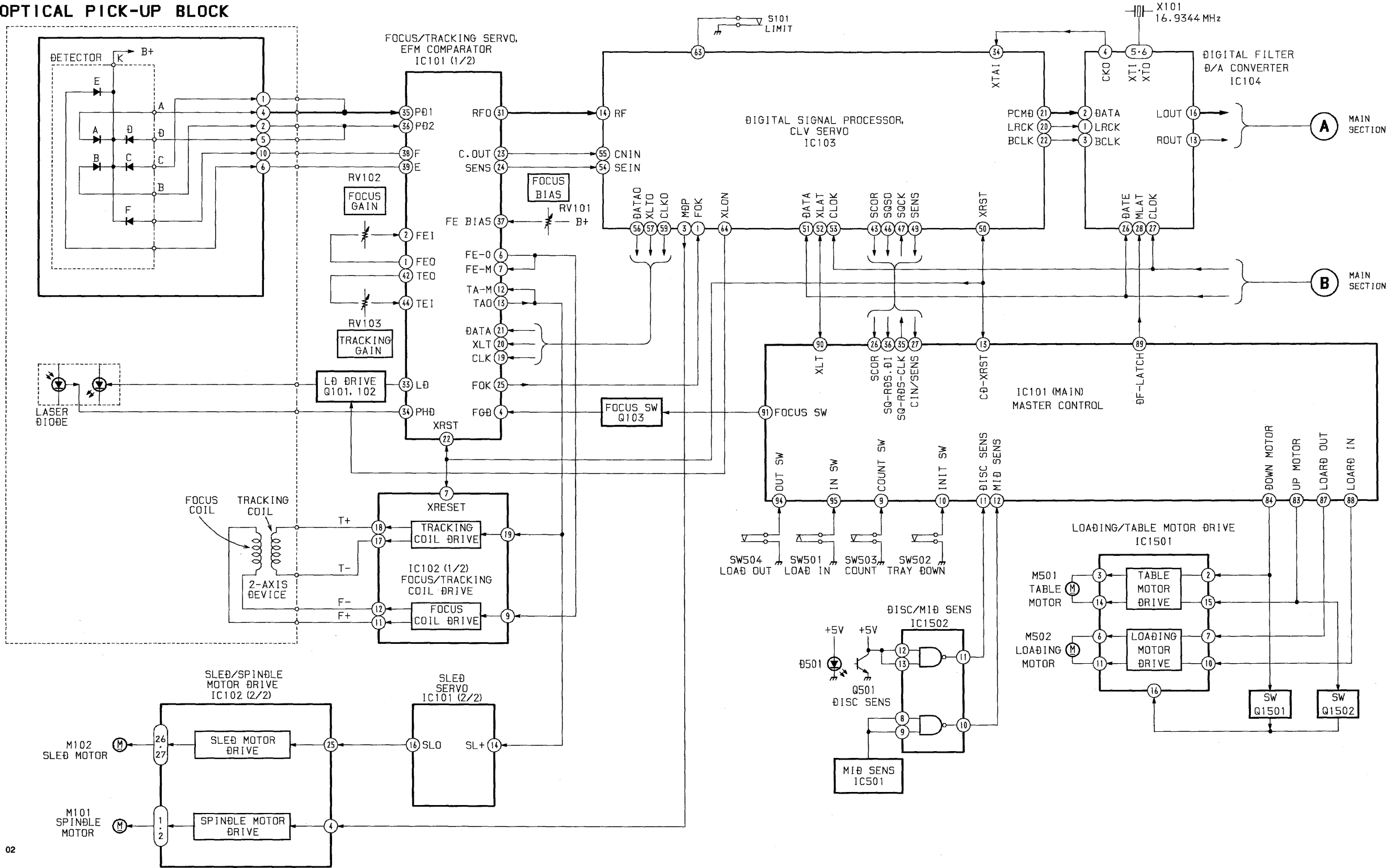
Pin No.	Pin name	I/O	Description
1	ENC1A	I	Volume encoder input terminal.
2	SIRCS	I	Remote commander signal input.
3	REQ. MG	I	Data transmission request input from master control.
4	REQ. GM	O	Data transmission request output to master control.
5	LED1	O	LED DRIVE output.
6	LED2	O	LED DRIVE output.
7	LED3	O	LED DRIVE output.
8	LED4	O	LED DRIVE output.
9	LED5	O	LED DRIVE output.
10	RDY	I/O	Master control Ready signal input/output. "L" : Ready
11	SCK. IN	I	Clock output for communications with master control.
12	SD. IN	I	Serial data input from master control.
13	SD. OUT	O	Serial data output to master control.
14	LED6	O	REC, PAUSE LED Output.
15	LED7	O	ROCK, USER FILE LED Output.
16	LED8	O	JAZZ, POPS LED Output.
17	LED9	O	CLASSIC, DANCE LED Output.
18	LED10	O	TUNER LED Output.
19	LED11	O	CD, TIMER LED Output.
20	LED12	—	Not used. (OPEN)
21	LED13	—	Not used. (OPEN)
22	KEY1	I	Key input. (A/D Converter)
23	KEY2	I	
24	KEY3	I	
25	KEY4	—	Not used. (+5V)
26	BPF1	I	Not used. (+5V)
27	BPF2	I	
28	BPF3	I	
29	BPF4	I	
30	$\overline{\text{RST}}$	I	Reset signal input terminal.
31	X IN	I	System clock. (4MHz)
32	X OUT	O	
33	Vss	—	GND
34	AN1	O	LCD Drive.
35	AN2	O	
36	AN3	O	
37	AN4	O	
38	AN5	O	
39	AN6	O	
40	AN7	O	

Pin No.	Pin name	I/O	Description
41	AN8	O	LCD Drive.
42	AN9	O	
43	AN10	O	
44	AN11	O	
45	AN12	O	
46	AN13	O	
47	AN14	O	
48	AN15	O	
49	AN16	O	
50	AN17	O	
51	AN18	O	
52	AN19	O	
53	AN20	O	
54	AN21	O	
55	AN22	O	
56	AN23	O	
57	AN24	O	
58	AN25	O	
59	GR1	O	
60	GR2	O	
61	GR3	O	
62	GR4	O	
63	GR5	O	
64	GR6	O	
65	GR7	O	
66	GR8	O	
67	GR9	O	
68	GR10	O	
69	GR11	O	
70	NC	—	Not used. (+5V)
71	VFDP	—	LCD drive — 25V power supply.
72	V _{DD}	—	Power supply. (+5V)
73	NC	—	Not used. (+5V)
74	NC	—	Not used. (+5V)
75	V _{DD} (TEST)	—	Not used. (+5V)
76	LED14	—	Not used. (OPEN)
77	LED15	—	Not used. (OPEN)
78	ENC 2B	—	Not used. (+5V)
79	ENC 2A	—	Not used. (+5V)
80	ENC 1B	—	Volume ENCODER input terminal.

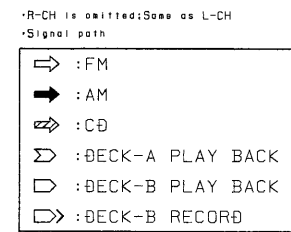
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM - CD SECTION -

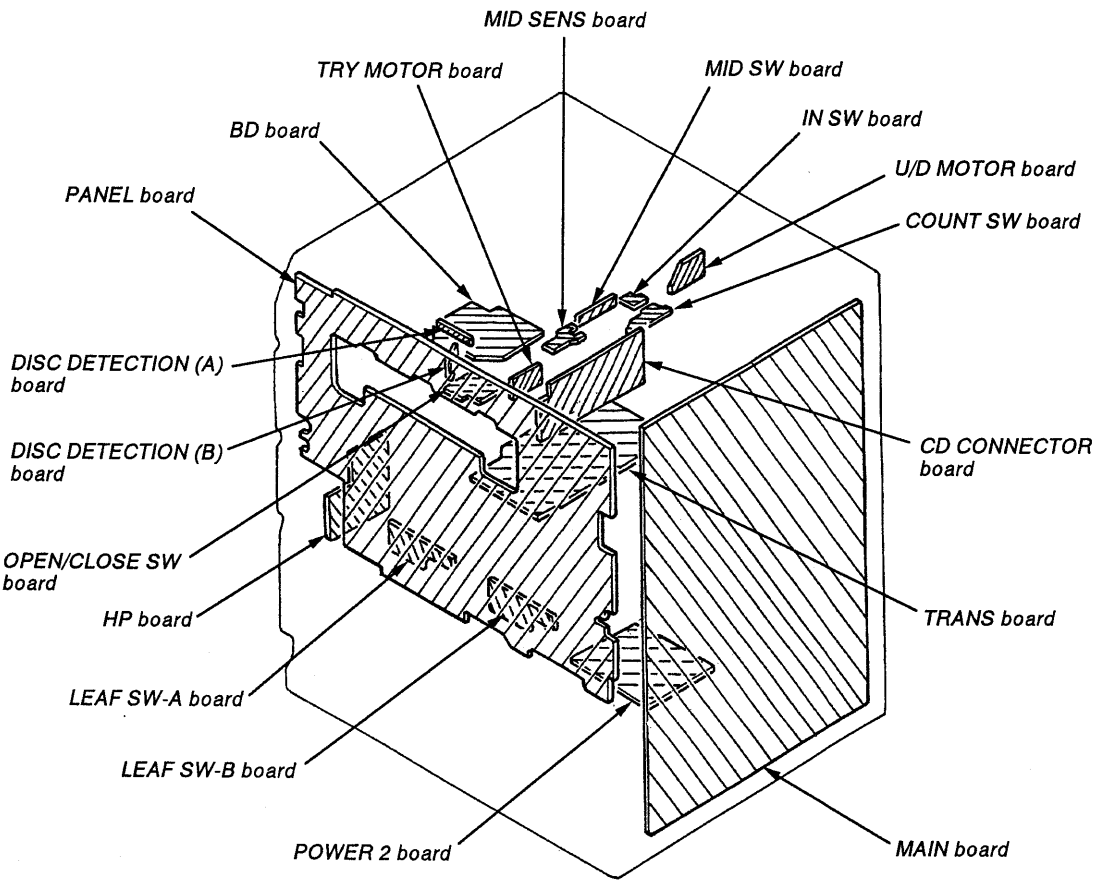
OPTICAL PICK-UP BLOCK



02

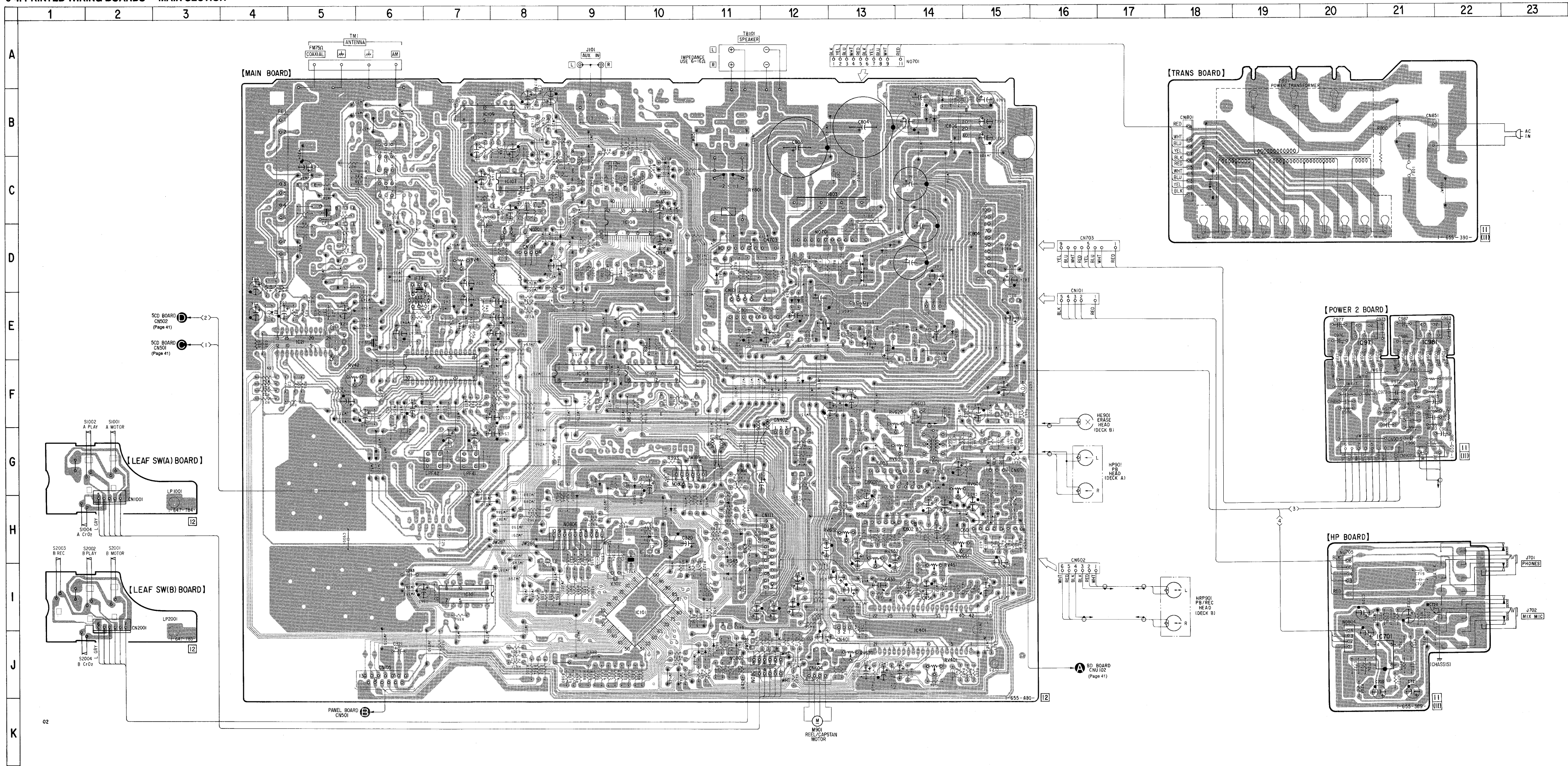


6-3. CIRCUIT BOARD LOCATION

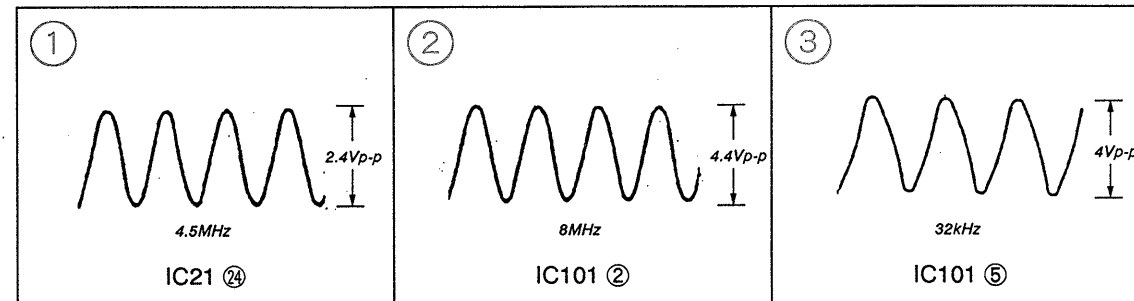


Ref. No.	Location	Ref. No.	Location
D21	E - 4	IC601	H - 15
D41	E - 8	IC602	H - 13
D102	D - 9	IC603	G - 13
D103	C - 10	IC701	J - 21
D104	H - 11	IC801	E - 11
D105	H - 11	IC802	E - 14
D106	I - 11	IC803	E - 13
D108	I - 11	IC804	D - 15
D109	H - 11	IC805	G - 9
D301	H - 9	IC806	B - 15
D302	H - 10	IC971	E - 20
D304	H - 10	IC981	E - 21
D401	F - 12		
D601	J - 12		
D621	J - 11	Q1	C - 5
		Q2	D - 5
D622	J - 11	Q3	C - 5
D623	J - 11	Q107	F - 10
D624	J - 11	Q108	F - 11
D801	E - 12		
D802	E - 12	Q110	F - 9
		Q170	H - 8
D803	C - 13	Q171	C - 8
D804	B - 14	Q172	C - 7
D805	B - 14	Q173	C - 9
D806	B - 14		
D807	D - 13	Q174	C - 9
		Q303	H - 10
D808	D - 13	Q401	G - 12
D809	D - 11	Q403	J - 11
D811	D - 13	Q451	G - 12
D812	D - 13		
D813	D - 13	Q601	J - 12
		Q602	I - 11
D814	D - 13	Q660	G - 15
D815	G - 10	Q661	G - 15
D819	G - 9	Q662	F - 15
D823	D - 14		
D824	E - 14	Q663	F - 15
		Q802	E - 12
IC21	E - 5	Q807	E - 15
IC41	F - 7	Q808	E - 13
IC101	I - 10	Q809	E - 13
IC102	F - 10		
IC104	F - 9	Q810	B - 15
		Q811	F - 14
IC107	C - 8	Q812	F - 14
IC108	C - 10	Q813	E - 12
IC109	B - 7		
IC301	I - 7		
IC401	J - 14		

-  : parts extracted from the component side.
-  : Pattern on the side which is seen.



- **WAVEFORMS**



Note :

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$
50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- Δ : internal component.

Note : The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

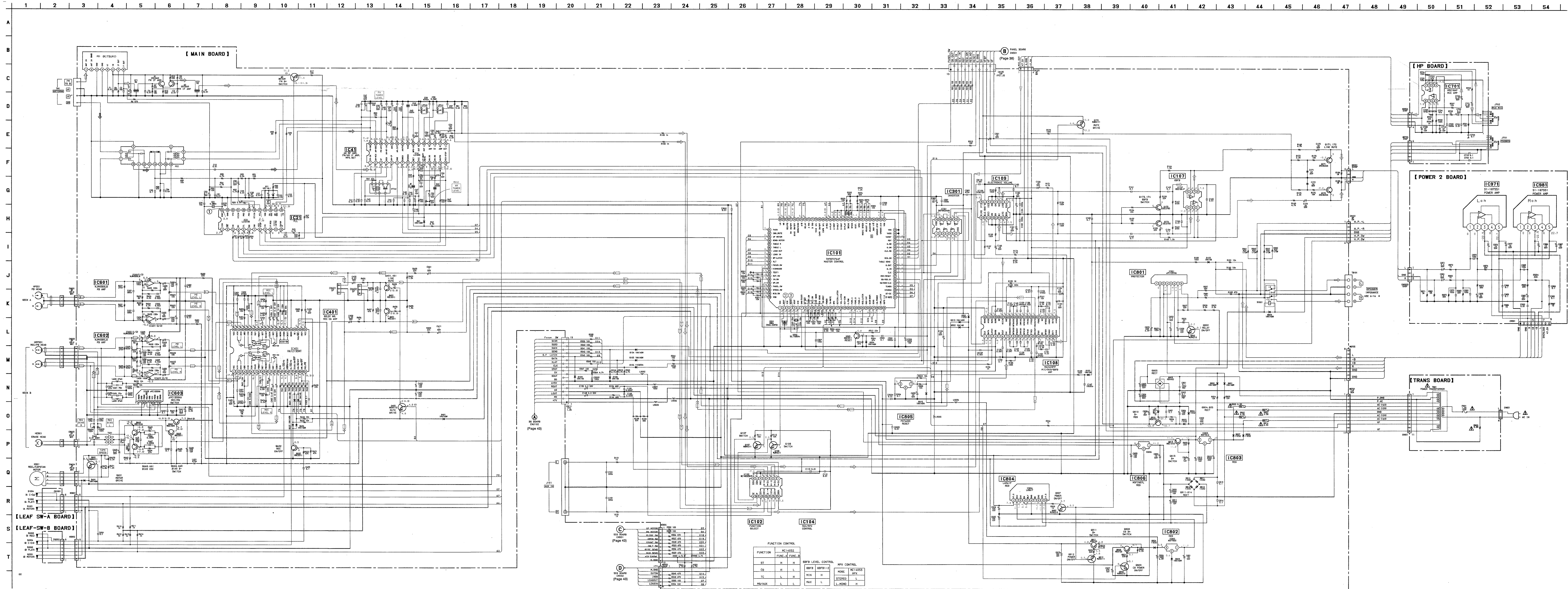
-  : B+ Line
-  : B - Line
-  : adjustment for repair.

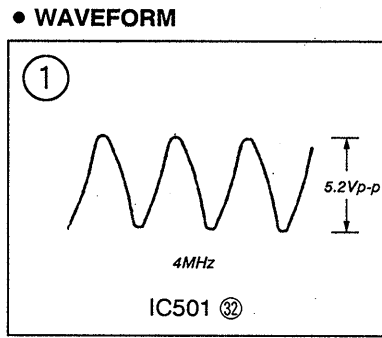
• Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.

no mark : FM (RADIO SECTION)/PLAY (TAPE SECTION)
() : AM (RADIO SECTION)/REC (TAPE SECTION)

- Voltages are taken with a VOM (Input Impedance 10M Ω).
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope.
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - ➡ : FM ⏏ : PB (DECK A)
 - ➡ : AM ⏏ : PB (DECK B)
 - ➡ : MIC ⏏ : REC (DECK B)

6-5. SCHEMATIC DIAGRAM – MAIN SECTION – • Refer to page 47 for IC Block Diagrams.

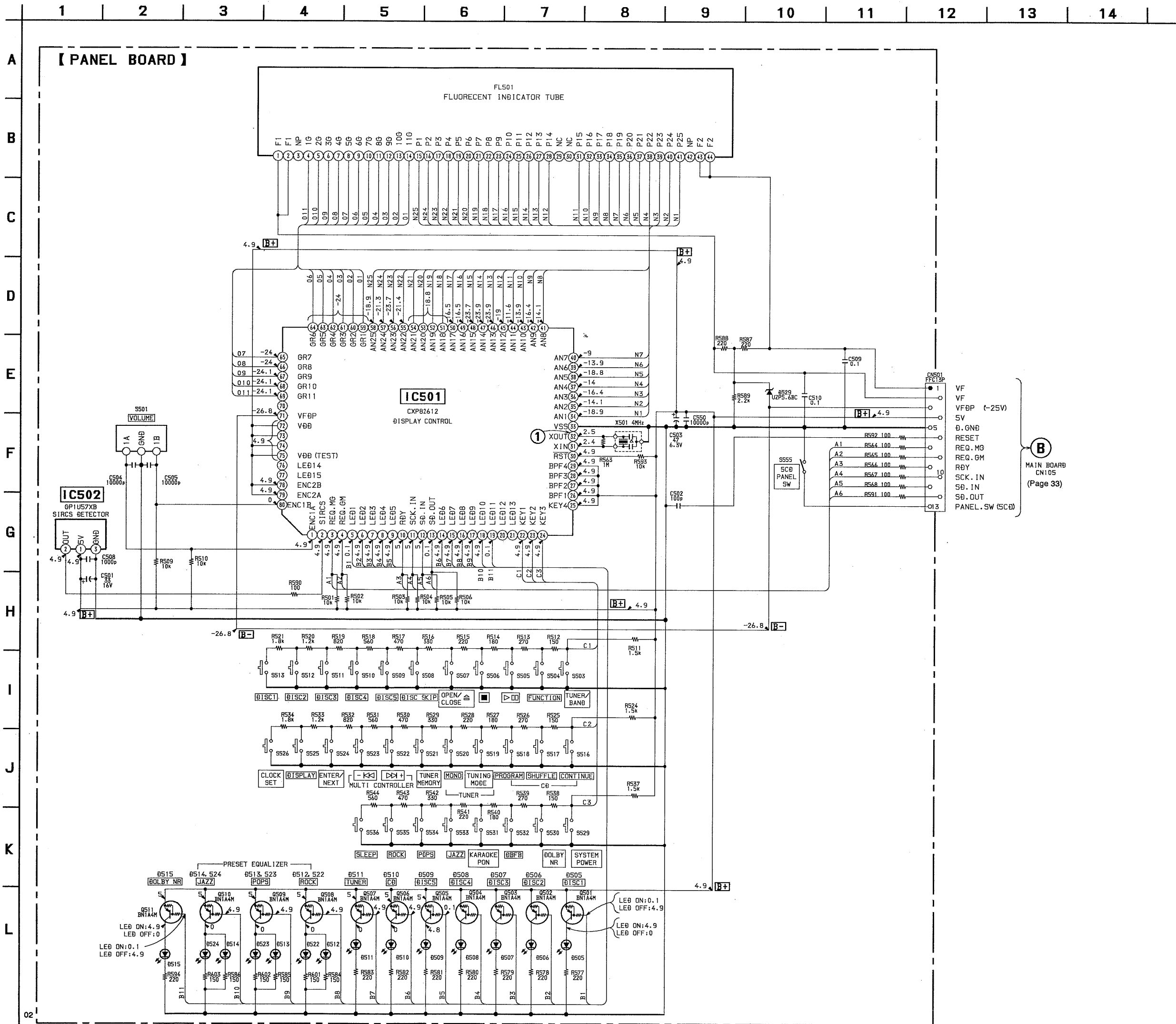




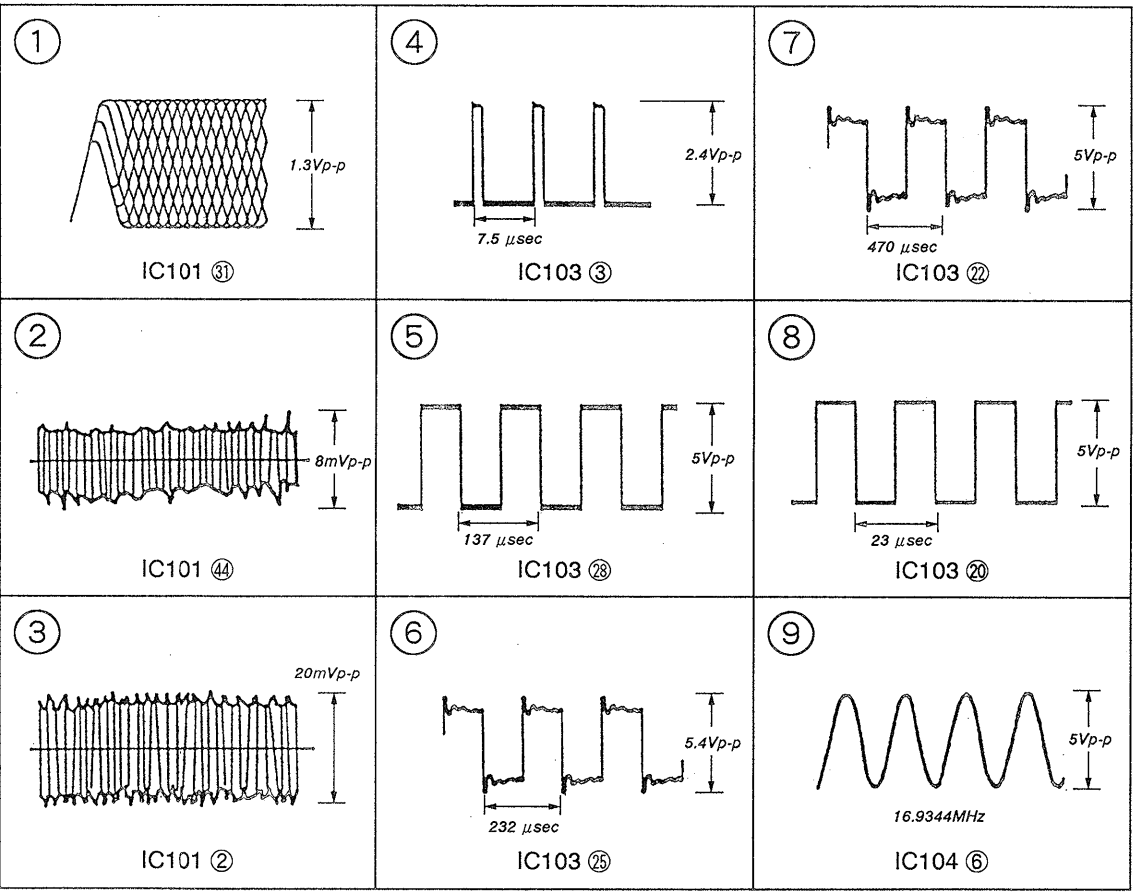
Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 500V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- Δ : Internal component.
- **[B+]** : B+ Line
- **[B-]** : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : FM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

6-6. SCHEMATIC DIAGRAM – PANEL SECTION – • Refer to page 47 for IC Block Diagrams.



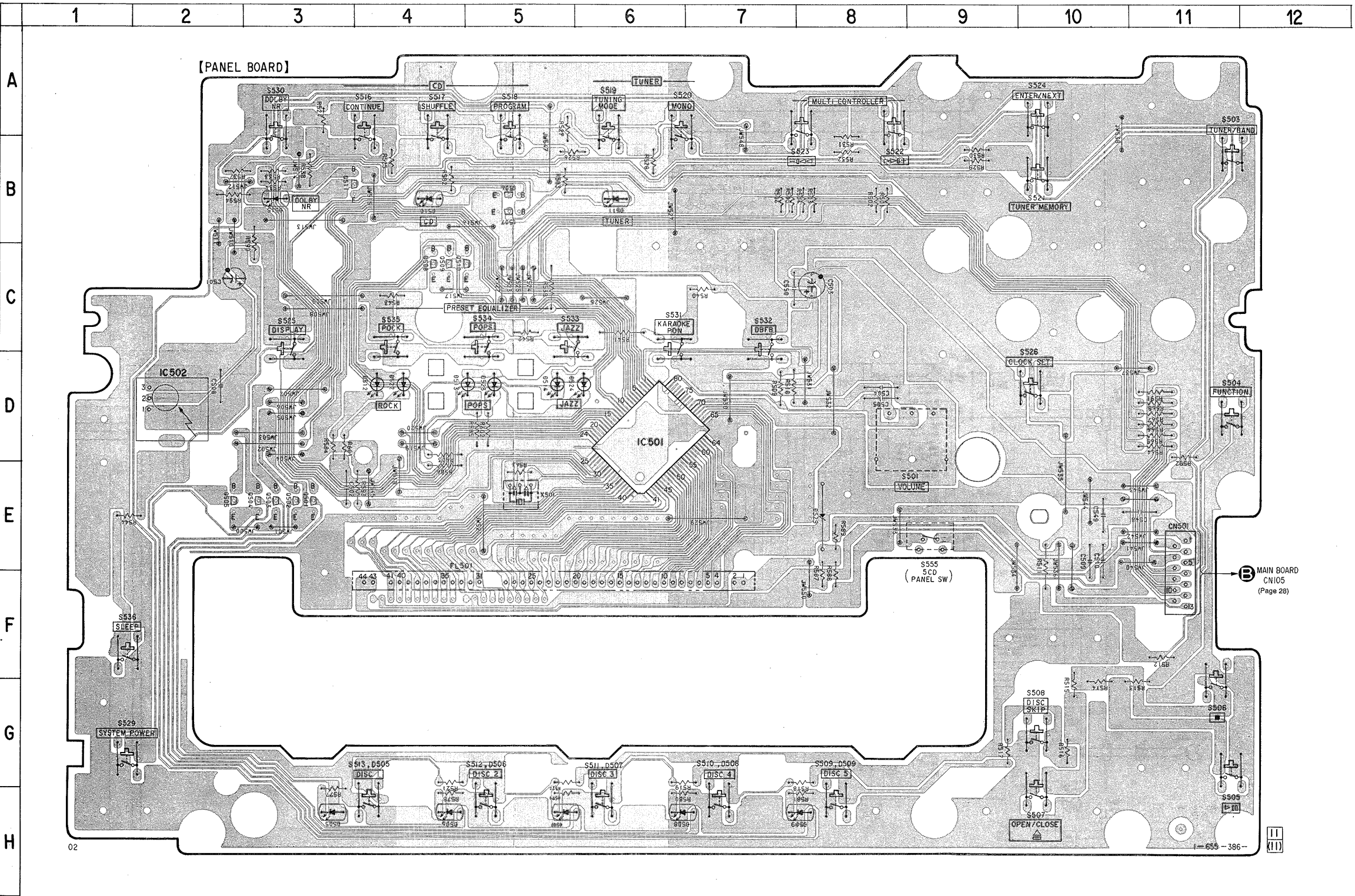
• WAVEFORMS – BD SECTION –



6-7. PRINTED WIRING BOARDS – PANEL SECTION –

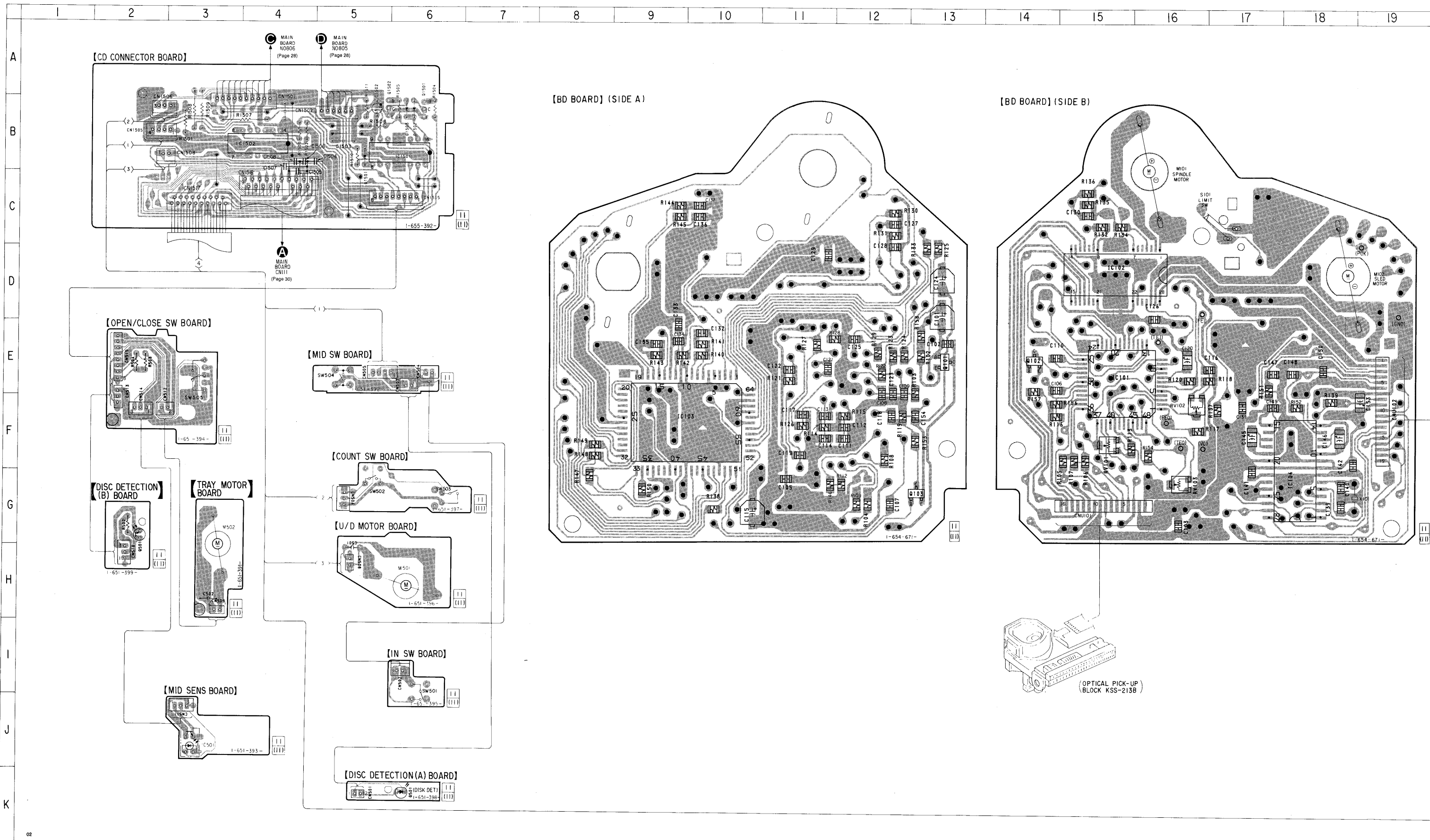
• SEMICONDUCTOR LOCATION

Ref. No.	Location
D505	H - 3
D506	H - 4
D507	H - 5
D508	H - 6
D509	H - 8
D510	B - 4
D511	B - 6
D512	D - 4
D513	D - 5
D514	D - 5
D515	D - 3
D522	D - 4
D523	D - 5
D524	D - 6
D529	E - 8
IC501	D - 6
IC502	D - 2
Q501	E - 3
Q502	E - 3
Q503	E - 3
Q504	E - 3
Q505	E - 2
Q506	B - 5
Q507	B - 5
Q508	C - 4
Q509	C - 4
Q510	C - 4
Q511	B - 3



Note:

- : parts extracted from the component side.
- : Pattern on the side which is seen.



SEMICONDUCTOR LOCATION

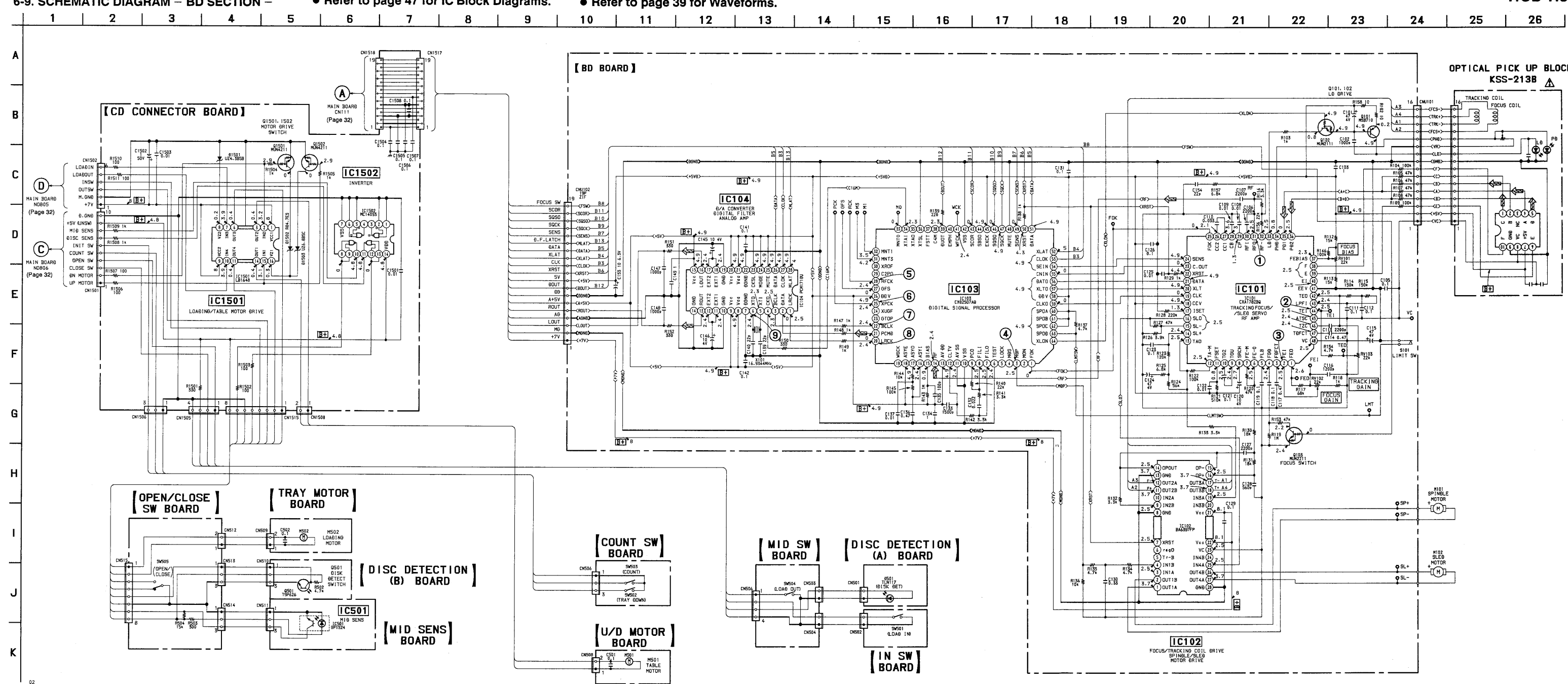
Ref. No.	Location
D501	K - 6
D1501	B - 5
D1502	B - 6
D1503	B - 6
IC101	E - 15
IC102	D - 15
IC103	F - 9
IC104	F - 8
IC501	J - 3
IC1501	B - 6
IC1502	B - 4
Q101	E - 13
Q102	E - 14
Q103	G - 13
Q1501	B - 6
Q1502	B - 5

Note:

- : parts extracted from the component side.
- ⋯ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated)

Caution :

Pattern face side : Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
Parts face side : Parts on the parts face side seen from the (Component side) parts face are indicated.



Note :

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/10W$ or less unless otherwise specified.

Note : The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- $B+$: B+ Line
- $\square$: adjustment for repair.

- Voltage and waveforms are dc with respect to ground under no-signal (CD) conditions. no mark : STOP (CD)

- Voltages are taken with a VOM (Input impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.

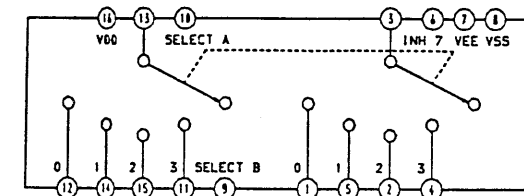
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.

- Circled numbers refer to waveforms.
- Signal path.

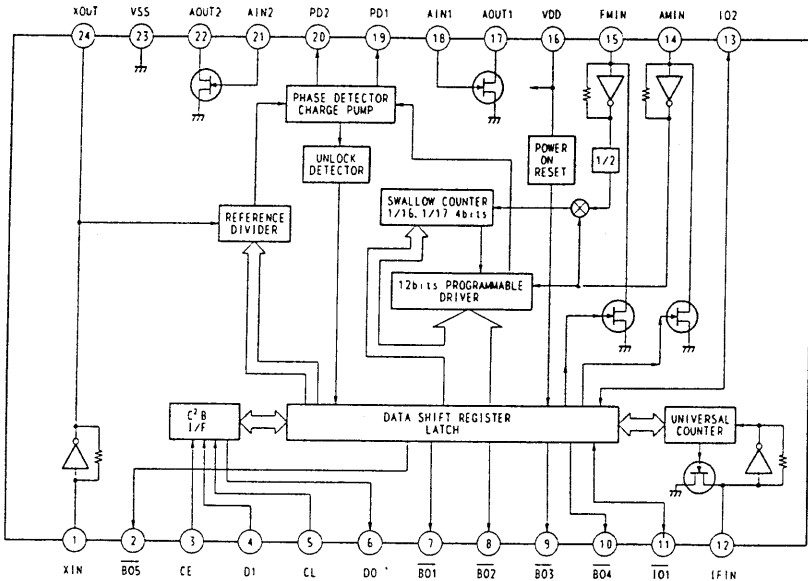
$\Rightarrow$: CD

6-10. IC BLOCK DIAGRAMS
— MAIN SECTION —

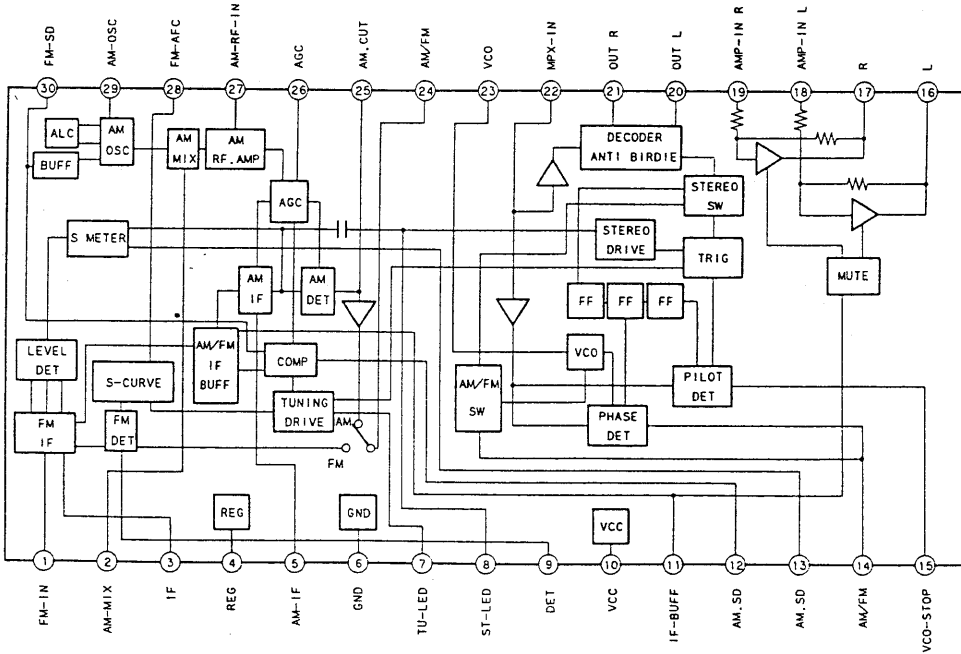
IC102 MC14052BCP



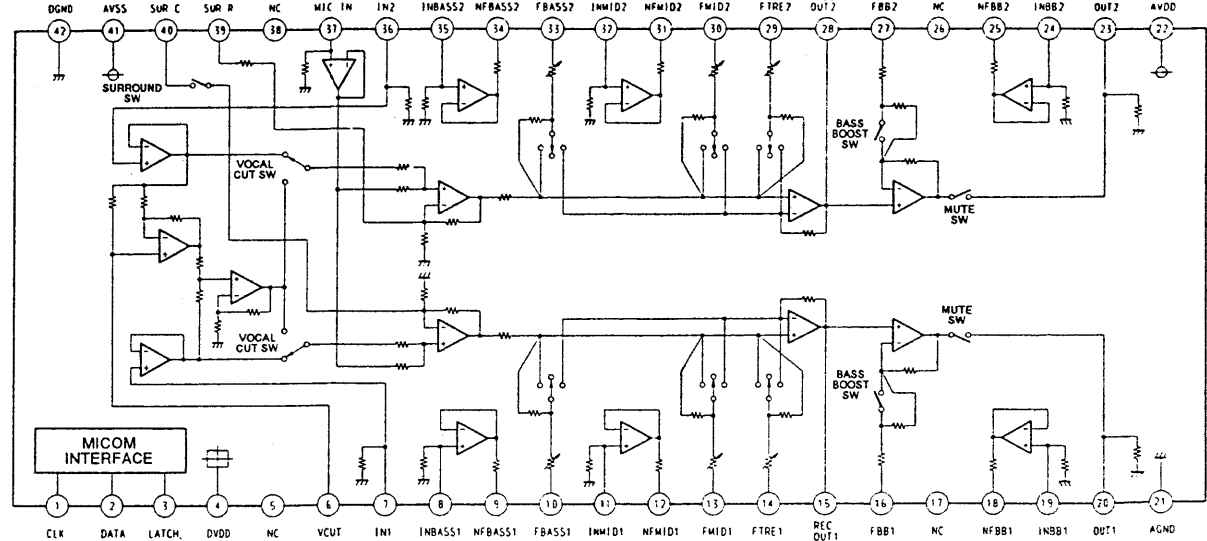
IC21 LC72130



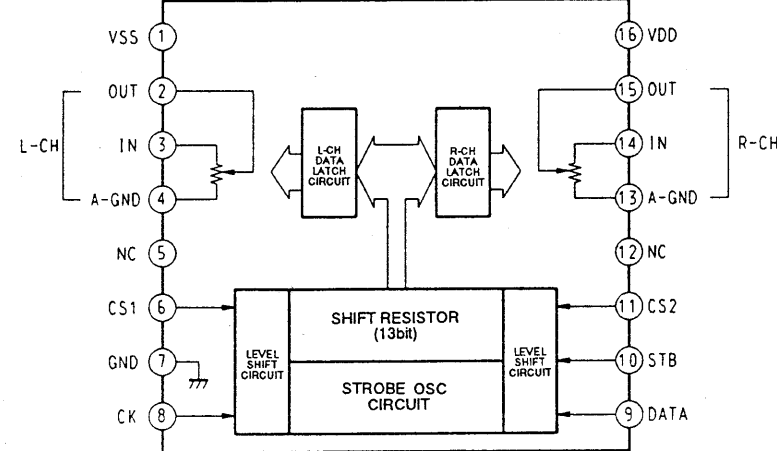
IC41 LA1835



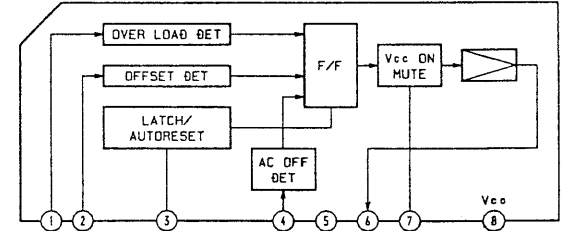
IC108 M62423FP



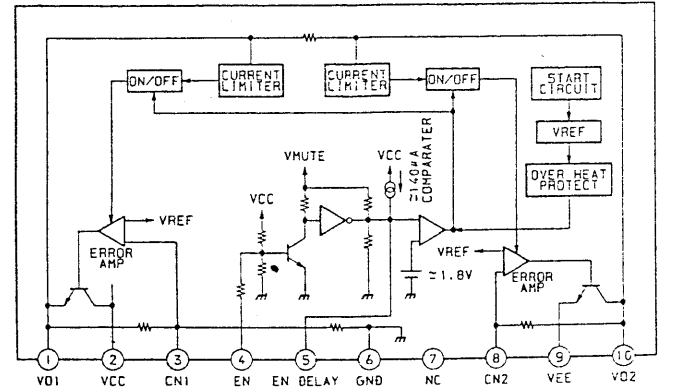
IC109 TC9210P



IC801 μ PC1237HA

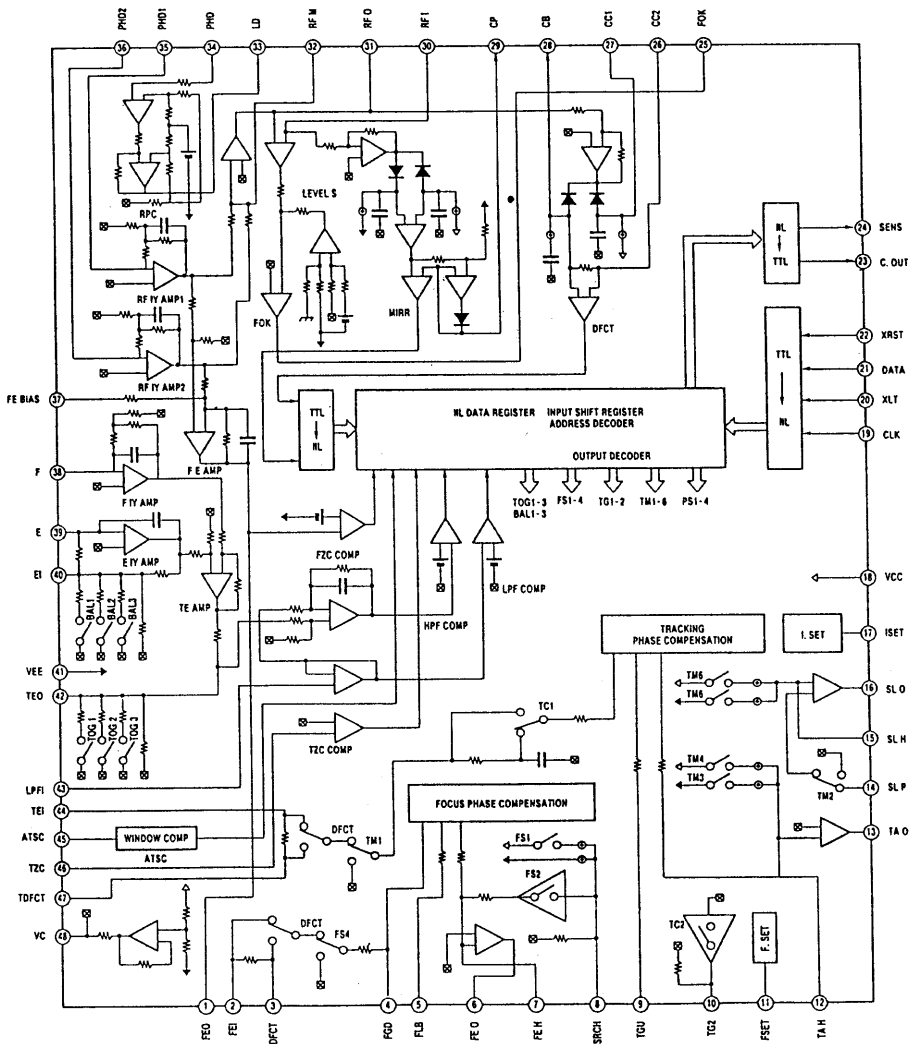


IC804 LA5617

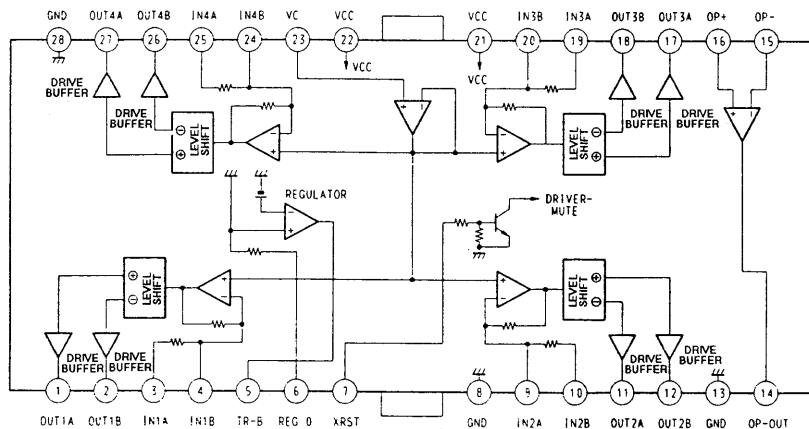


- BD SECTION -

IC101 CXA1782BQ



IC102 BA6397FP



SECTION 7 EXPLODED VIEWS

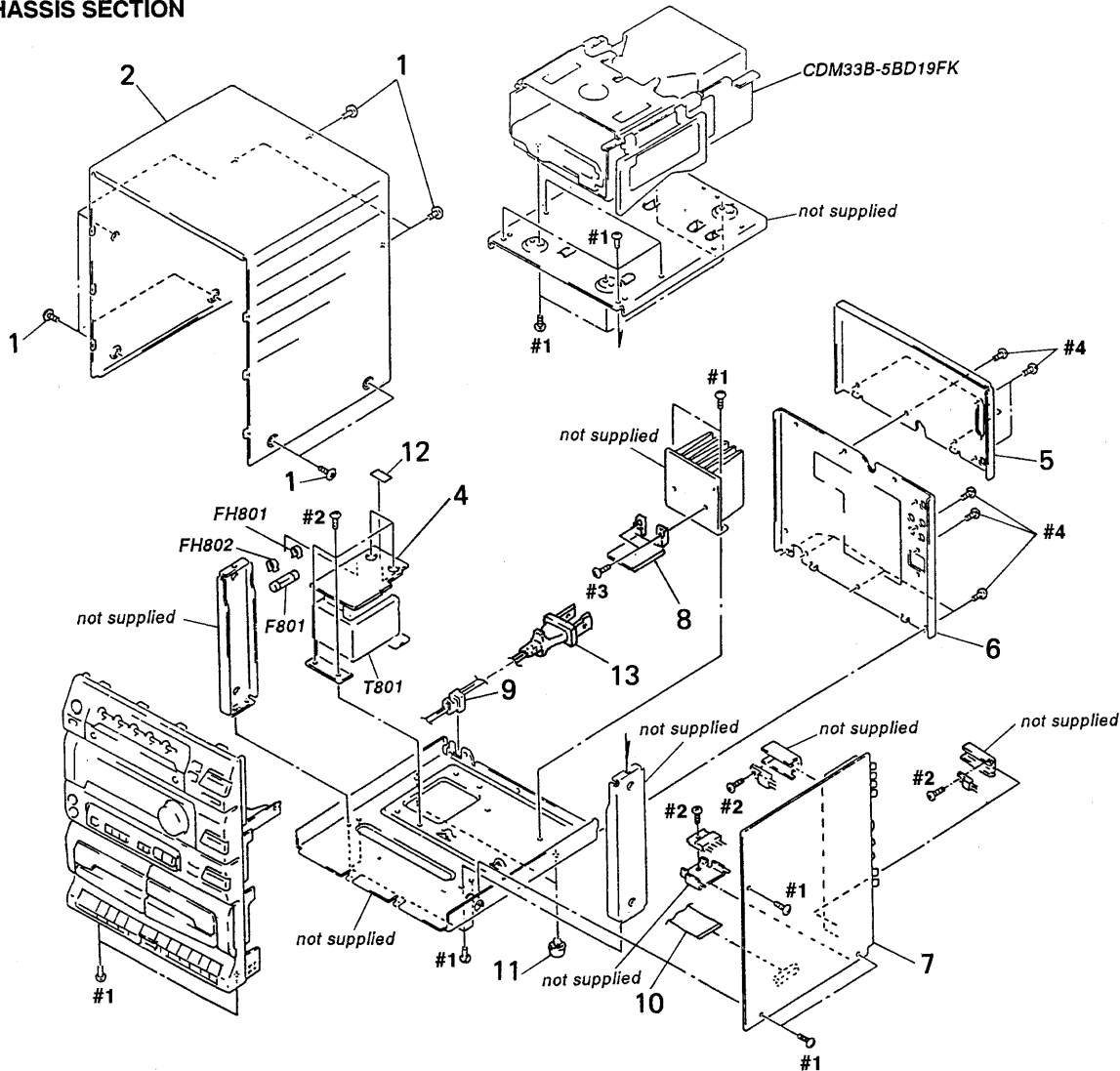
NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

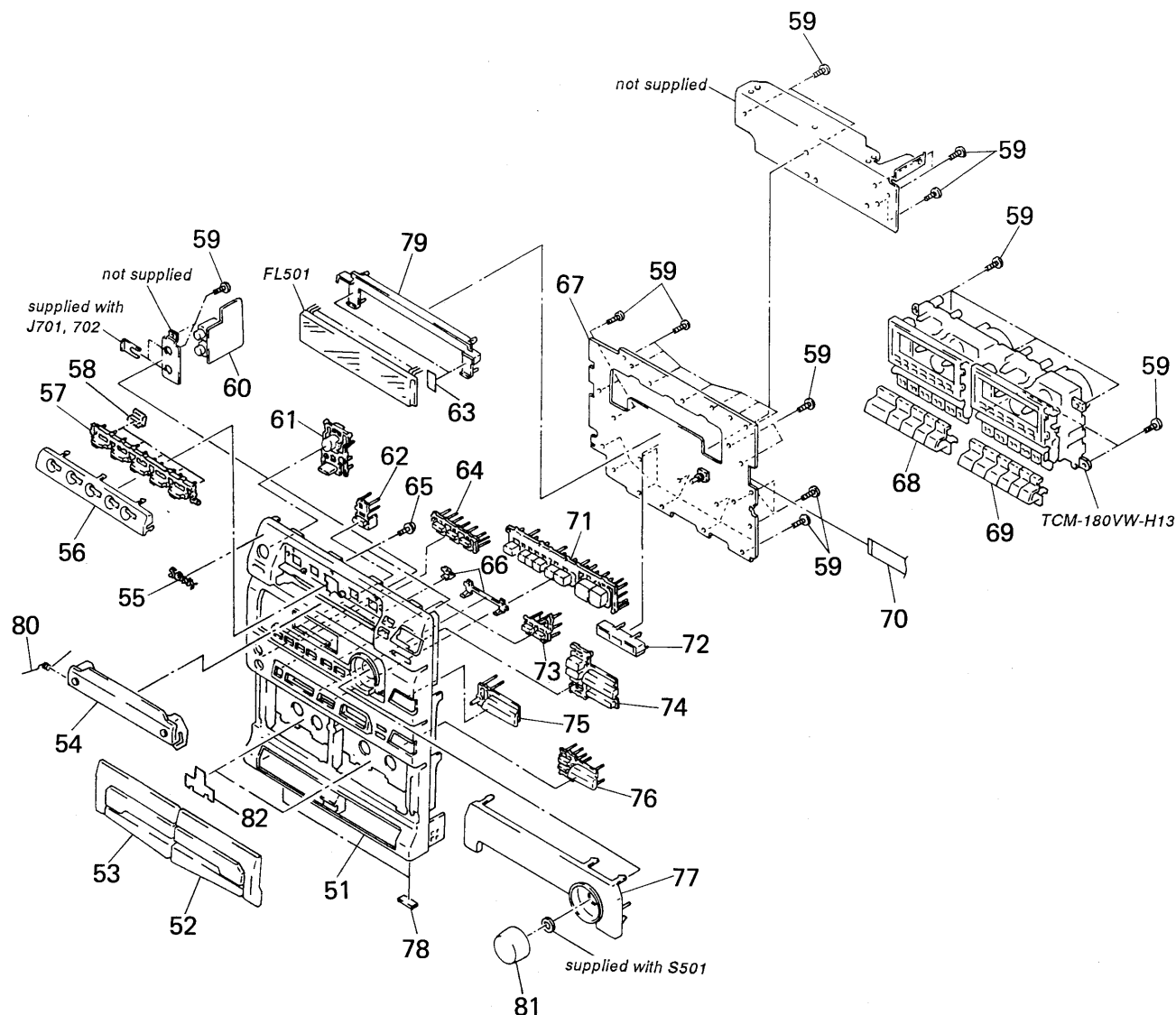
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

7-1. CHASSIS SECTION



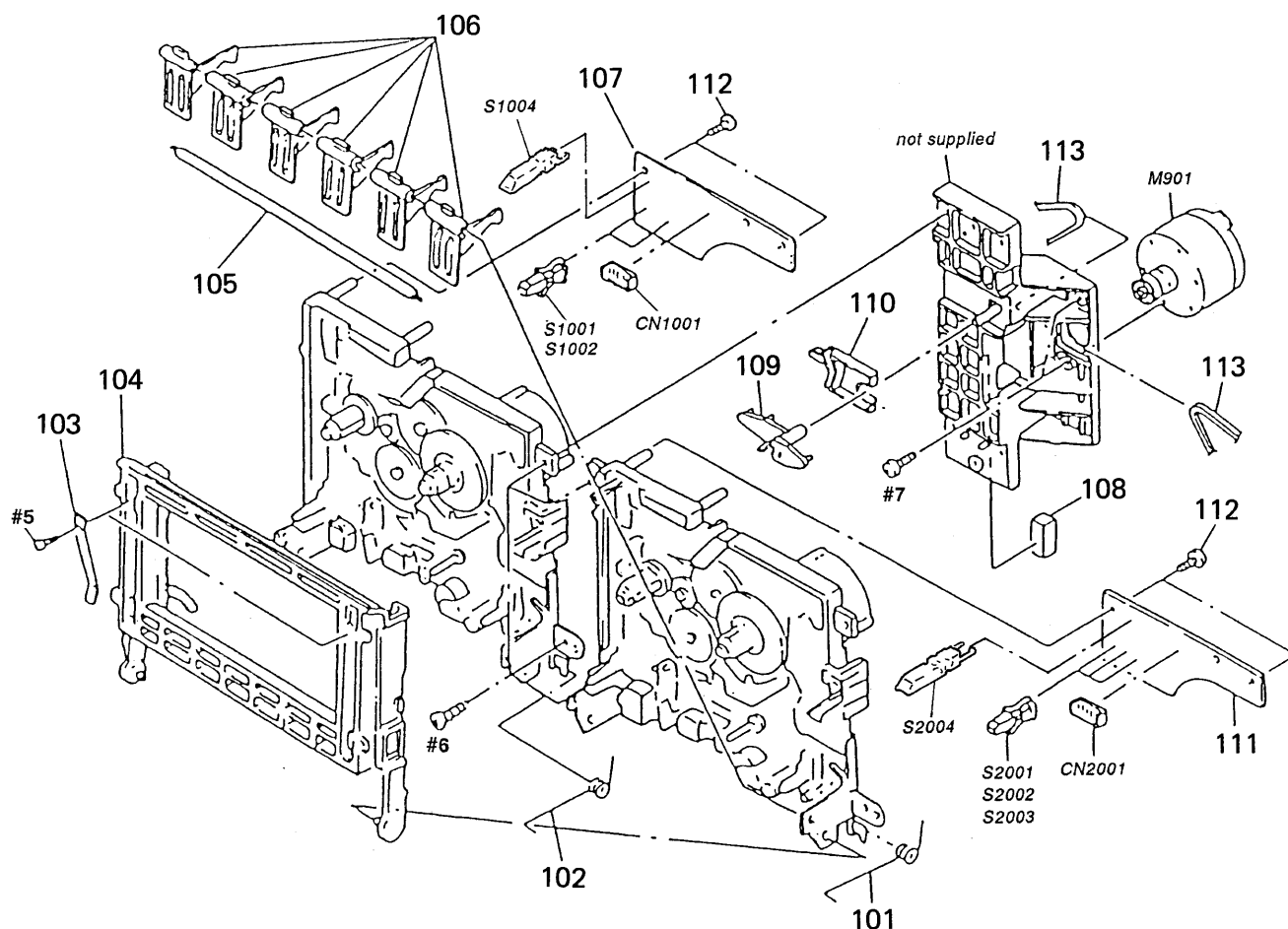
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-363-099-01	SCREW (CASE 3 TP2)		10	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
2	4-971-899-31	CASE		11	4-965-822-01	FOOT	
* 4	1-655-390-11	TRANS BOARD		* 12	3-701-946-12	LABEL, FUSE RATING	
* 5	4-971-893-01	PANEL (UPPER), BACK		Δ 13	1-690-609-21	CORD, POWER	
* 6	4-971-885-01	PANEL (LOWER), BACK		Δ F801	1-576-103-11	FUSE (T1. 6AL, 125V)	
* 7	A-4377-423-A	MAIN BOARD, COMPLETE		FH801	1-533-293-11	FUSE HOLDER	
* 8	1-655-388-11	POWER 2 BOARD		FH802	1-533-293-11	FUSE HOLDER	
* 9	3-703-244-00	BUSHING (2104), CORD		Δ T801	1-427-798-11	TRANSFORMER, POWER	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-971-867-21	PANEL, FRONT		68	4-971-953-01	BUTTON (MD-A)	
52	X-4945-700-1	LID (B) ASSY, CASSETTE		69	4-971-954-01	BUTTON (MD-B)	
53	X-4945-699-1	LID (A) ASSY, CASSETTE		70	1-590-036-31	WIRE, FLAT TYPE (13 CORE)	
54	4-970-490-01	LID (LOADING)		71	4-971-875-01	BUTTON (PRE)	
55	4-962-708-11	EMBLEM (4-A), SONY		* 72	4-971-888-01	HOLDER (LED)	
56	4-971-869-01	ESCUTCHEON (CD)		73	4-971-874-01	BUTTON (DBFB)	
57	4-971-870-01	BUTTON (CD5)		74	4-971-872-01	BUTTON (PLAY)	
58	4-971-871-01	INDICATOR (CD5)		75	4-971-877-01	BUTTON (FUNC)	
59	4-951-620-11	SCREW (2.6×10), +BVTP		76	4-971-880-01	BUTTON (T/B)	
* 60	1-655-389-11	H. P BOARD		77	4-971-873-01	WINDOW (FL)	
61	4-971-868-01	BUTTON (POWER)		78	4-930-336-61	FOOT (FELT)	
62	4-971-876-01	BUTTON (DISPLAY)		* 79	4-970-711-01	HOLDER, FL TUBE	
* 63	4-932-810-11	CUSHION (FL)		80	4-970-902-01	SPRING (LID)	
64	4-971-878-01	BUTTON (MODE)		81	4-973-774-01	KNOB (VOL)	
65	4-933-134-01	SCREW (+PTPWH M2.6×6)		* 82	3-376-136-01	CUSHION (HALF)	
66	4-971-879-01	INDICATOR (MODE)		FL501	1-517-364-11	INDICATOR TUBE, FLUORESCENT	
* 67	A-4377-427-A	PANEL BOARD, COMPLETE					

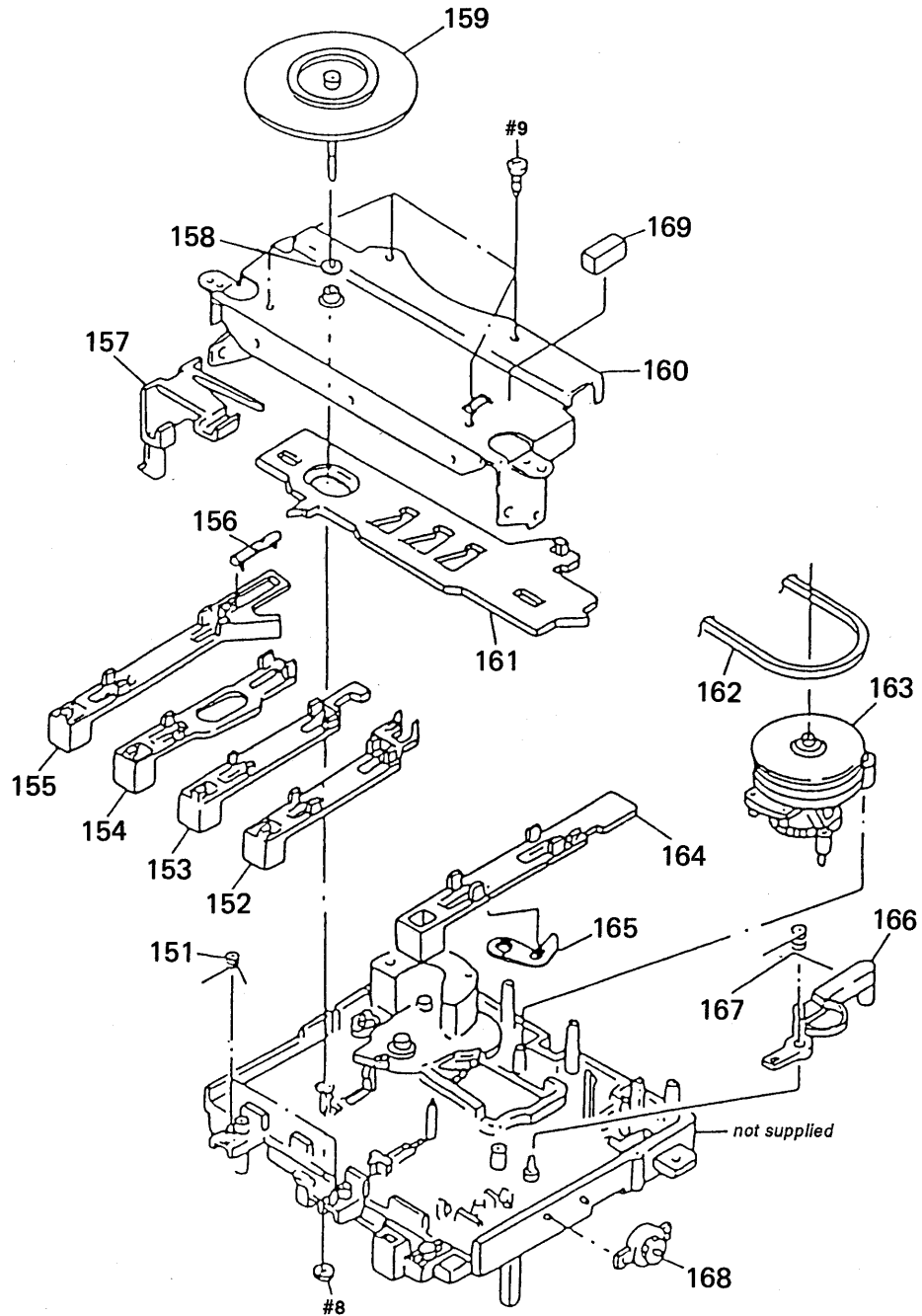
7-3. MECHANISM DECK SECTION-1
(TCM-180VW-H13)



Ref.No.	Part No.	Description	Remark
101	3-358-287-01	SPRING (LOADING A), TORSION	
102	3-358-229-01	SPRING (LOADING), TORSION	
103	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF	
104	3-358-266-02	HOLDER, CASSETTE	
105	3-371-917-01	SHAFT (BUTTON SHAFT 4)	
106	3-369-335-01	LEVER (BUTTON BASE F)	
* 107	1-647-784-11	LEAF SW-A BOARD	
* 108	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
109	3-358-203-01	LEVER (TRIGGER)	
110	3-358-202-01	SLIDER (TRIGGER)	
* 111	1-647-785-11	LEAF SW-B BOARD	
112	4-951-620-01	SCREW (2.6×8), +BVTP	

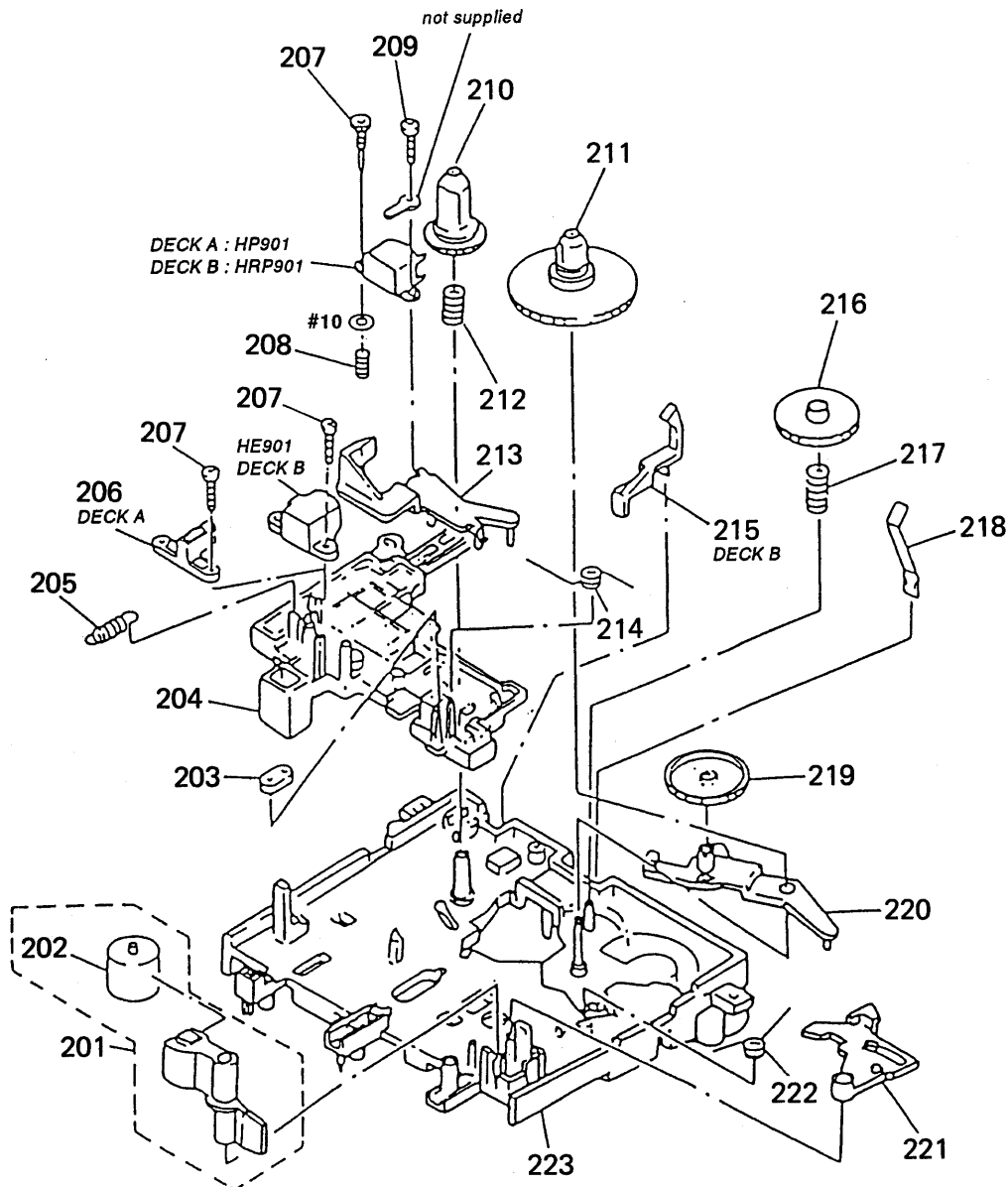
Ref.No.	Part No.	Description	Remark
113	3-364-777-01	BELT (WH)	
* CN1001	1-568-943-11	PIN, CONNECTOR 5P	
* CN2001	1-568-944-11	PIN, CONNECTOR 6P	
M901	X-3362-377-1	MOTOR (WH) ASSY	
S1001	1-571-736-11	SWITCH, LEAF (A MOTOR)	
S1002	1-571-736-11	SWITCH, LEAF (A PLAY)	
S1004	1-692-997-11	SWITCH, LEAF (A CrO ₂)	
S2001	1-571-736-11	SWITCH, LEAF (B MOTOR)	
S2002	1-571-736-11	SWITCH, LEAF (B PLAY)	
S2003	1-571-736-11	SWITCH, LEAF (B REC)	
S2004	1-692-997-11	SWITCH, LEAF (B CrO ₂)	

7-4. MECHANISM DECK SECTION-2
(TCM-180VW-H13)



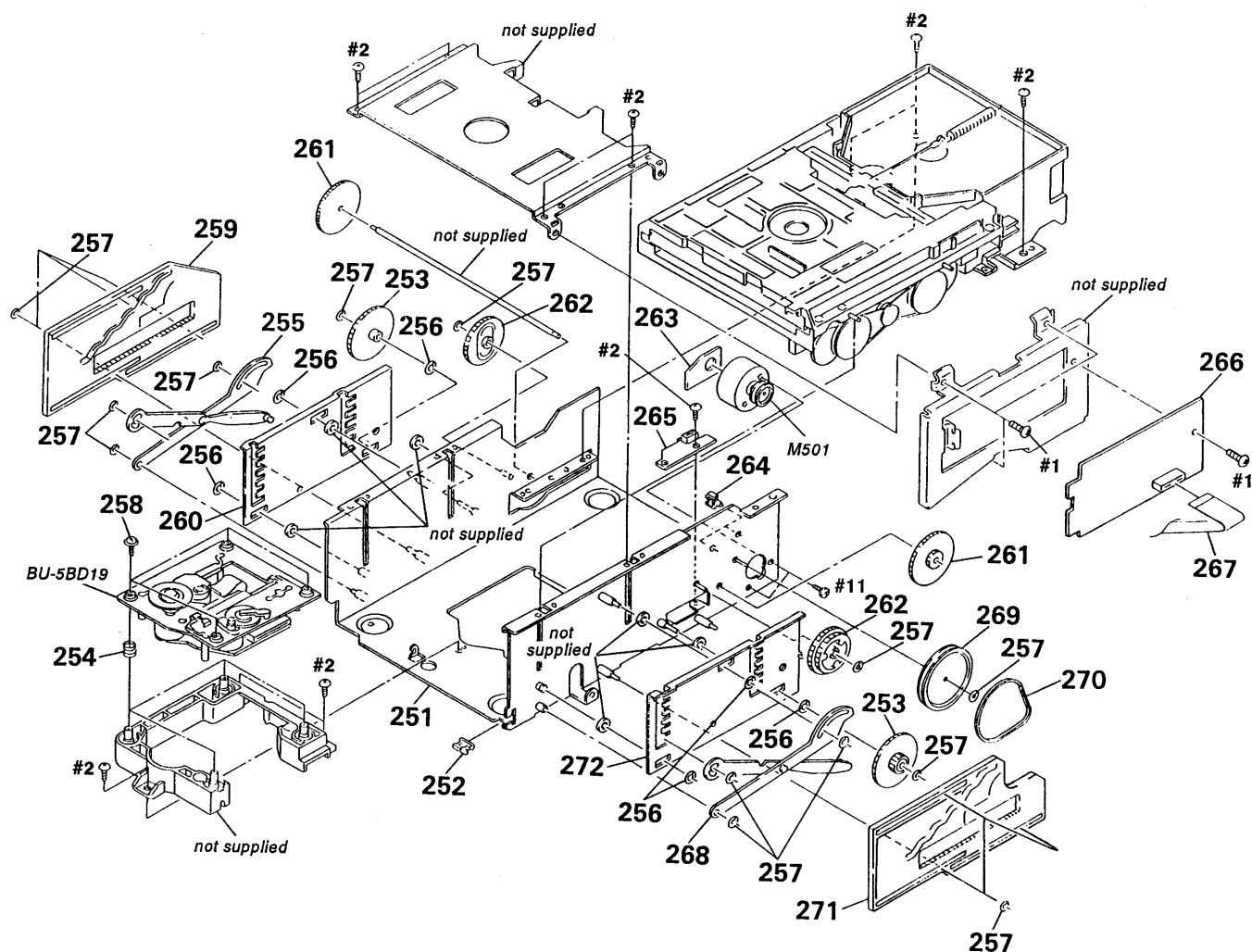
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-358-232-01	SPRING (S-P F-R), TORSION		* 161	3-358-249-01	SLIDER (LOCK PLATE)	
152	3-358-258-01	SLIDER (REW)		162	3-358-230-01	BELT (A1)	
153	3-358-257-01	SLIDER (FF)		163	X-3358-202-1	LEVER (FR ARM) ASSY	
154	3-358-256-01	SLIDER (STOP/EJECT)		164	3-358-259-01	SLIDER (REC)	
155	3-358-260-01	SLIDER (PAUSE)		* 165	3-358-204-01	LEVER (REC SAFETY)	
* 156	3-358-226-01	LEVER (PAUSE LEVER)		166	3-358-286-01	LEVER (MOTOR LEVER)	
* 157	3-358-261-02	SLIDER (HOLDER LOCK)		167	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
158	3-701-437-01	WASHER		167	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
159	X-3358-205-1	FLYWHEEL (A) ASSY (DECK B)		168	3-319-224-51	DAMPER, SMALL	
159	X-3366-859-1	FLYWHEEL (D) ASSY (DECK A)		* 169	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
160	X-3365-582-1	BRACKET (D) ASSY					

7-5. MECHANISM DECK SECTION-3
(TCM-180VW-H13)



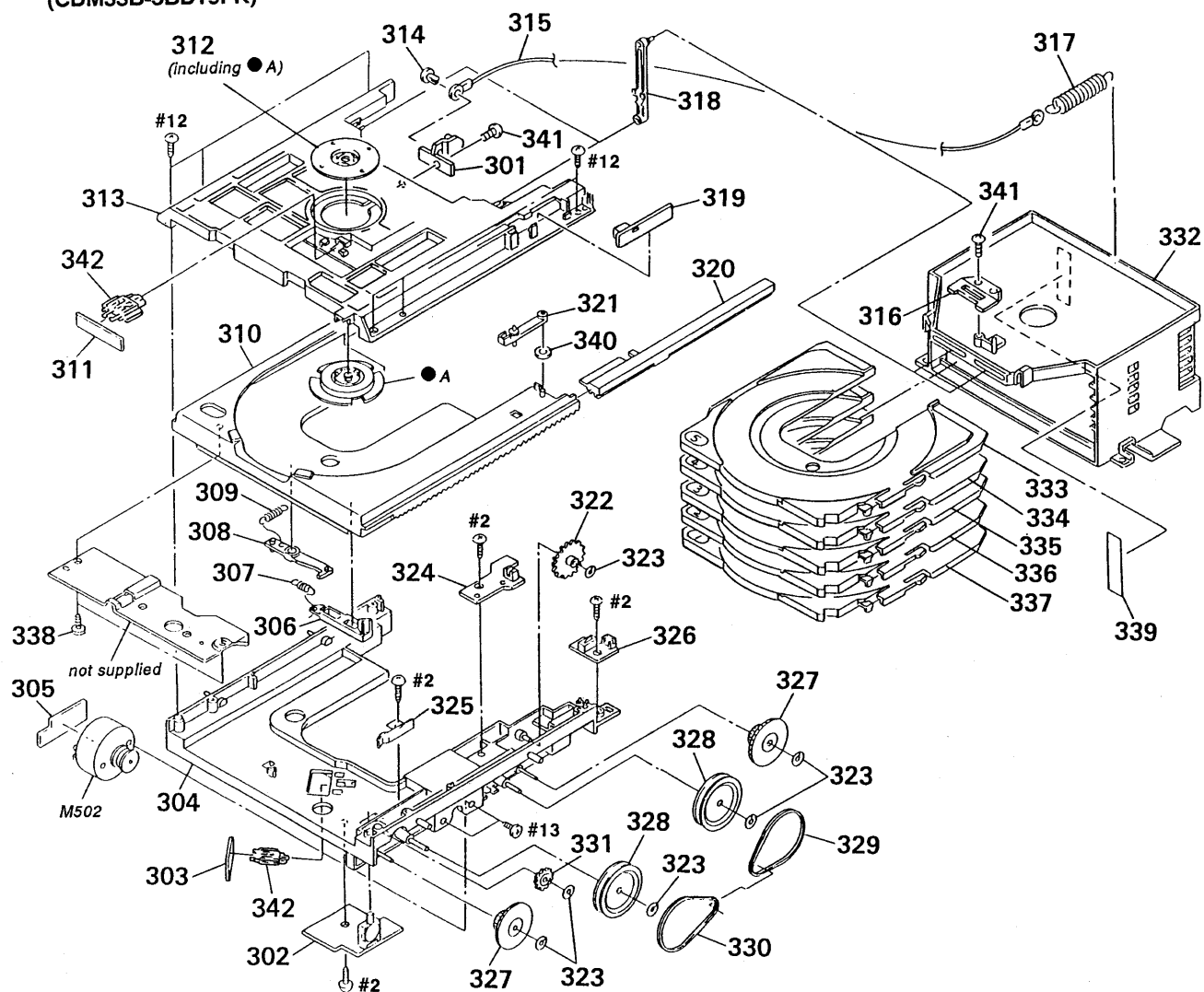
Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
201	X-3358-204-1	LEVER (PINCH LEVER) ASSY		214	3-358-228-01	SPRING, TORSION	
202	3-578-143-11	PINCH ROLLER		* 215	3-358-255-01	LEVER (GB LEVER)	
* 203	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 216	3-358-224-01	GEAR (FF GEAR)	
204	3-358-265-01	SLIDER (HEAD PC BOARD A)		217	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
205	3-358-217-01	SPRING, TENSION		218	3-358-227-01	SPRING, LEAF	
* 206	3-363-931-01	GUIDE, TAPE		* 219	3-358-284-01	GEAR (TU GEAR)	
207	3-358-288-11	SCREW (T), AZIMUTH		* 220	3-358-252-01	LEVER (TU ARM)	
208	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 221	3-358-253-01	LEVER (SHUT-OFF LEVER)	
209	3-358-288-01	SCREW (T), AZIMUTH		222	3-358-243-01	SPRING (TU-SHUT), TORSION	
210	3-358-248-01	GEAR (SUPPLY REEL)		223	X-3358-207-2	CHASSIS (A) ASSY	
211	X-3358-203-1	TABLE (T) ASSY, REEL		HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
212	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
* 213	3-358-251-01	LEVER (TENSION DETECTION ARM)		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	

7-6. CD MECHANISM SECTION-1
(CDM33B-5BD19FK)



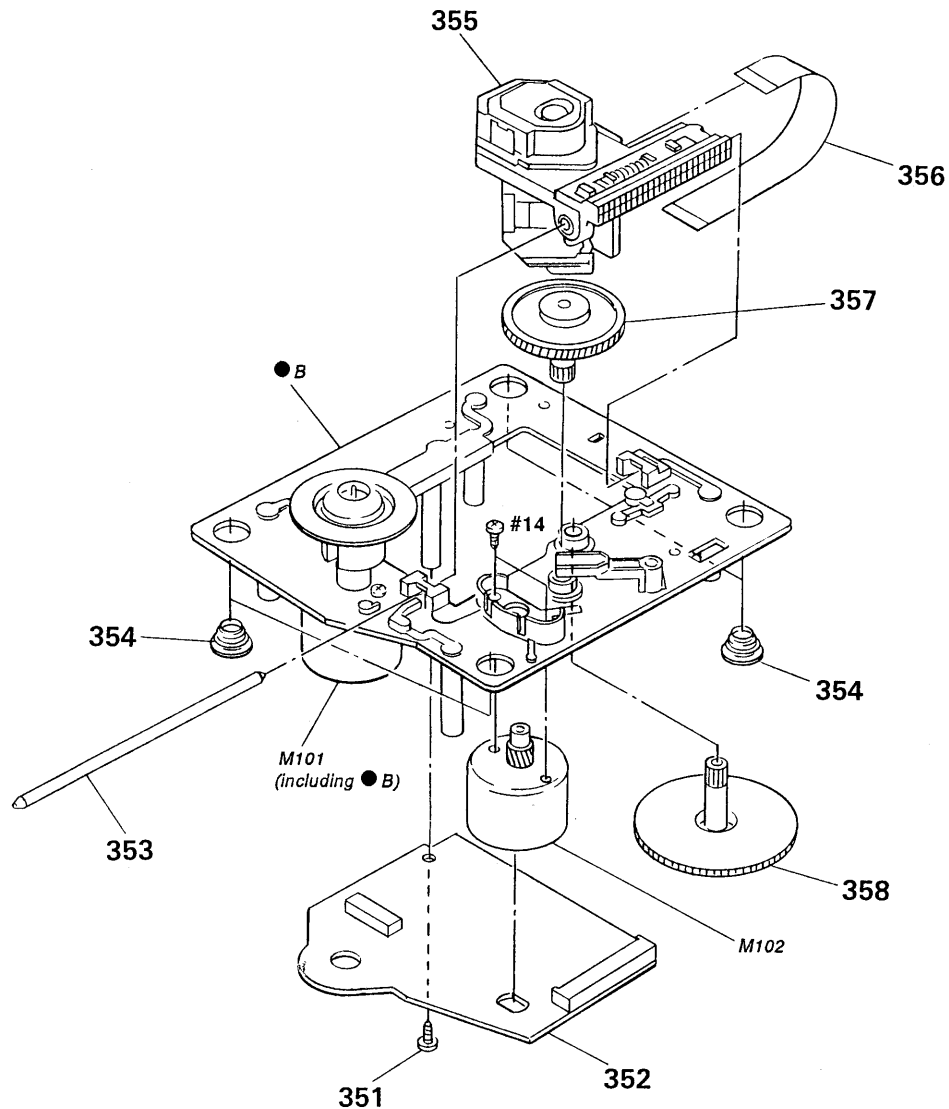
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 251	X-4945-930-1	CHASSIS (B) ASSY, SUB		* 263	1-651-396-11	U/D MOTOR BOARD	
252	3-383-699-01	CLAMP (EDGE)		264	4-962-113-01	CLAMP	
253	4-972-079-02	GEAR (U/D)		* 265	1-651-397-11	COUNT SW BOARD	
254	4-948-503-01	SPRING (BU), COMPRESSION		* 266	1-655-392-11	CD CONNECTOR BOARD	
* 255	X-4945-719-2	LEVER (L) ASSY		267	1-769-270-11	WIRE (FLAT TYPE) (19 CORE)	
256	4-967-102-01	WASHER, STOPPER		* 268	X-4945-718-2	LEVER (R) ASSY	
257	4-957-798-01	WASHER, STOPPER		269	4-964-487-02	PULLEY (U/D)	
258	4-933-134-01	SCREW (+PTPWH M2.6×6)		270	4-964-477-01	BELT (U/D)	
259	4-972-078-11	CAM (L), GROOVE		271	4-972-077-11	CAM (R), GROOVE	
* 260	X-4945-717-2	SLIDER ASSY		* 272	X-4945-716-2	SLIDER ASSY	
261	4-964-466-03	GEAR (JOINT)		M501	X-4660-857-A	MOTOR (U/D) ASSY	
262	4-972-076-02	GEAR (CAM B)					

7-7. CD MECHANISM SECTION-2
(CDM33B-5BD19FK)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	301	4-972-860-02 LEVER (STOPPER)		323	4-957-798-01 WASHER, STOPPER		
*	302	1-651-394-11 OPEN/CLOSE SW BOARD		* 324	1-651-393-11 MID SENS BOARD		
*	303	1-651-399-11 DISC DETECTION (B) BOARD		325	4-967-196-01 SPRING (CLICK), LEAF		
	304	X-4945-929-1 BASE (TRAY B) ASSY, FITTING		* 326	1-651-395-11 IN SW BOARD		
*	305	1-651-391-11 TRAY MOTOR BOARD		327	4-964-464-02 GEAR (DECELERATION)		
	306	4-964-458-01 SLIDER (CLICK)		328	4-964-465-02 PULLEY (TRAY)		
	307	4-964-481-01 SPRING (A), TENSION		329	4-964-476-01 BELT (R)		
	308	4-964-459-01 LEVER (STOPPER)		330	3-319-030-01 BELT (MIDWAY)		
	309	4-964-482-01 SPRING (B), TENSION		331	4-964-462-02 GEAR (TRAY F)		
	310	4-964-453-01 TRAY (MAIN)		332	4-964-193-11 STOCKER		
*	311	1-651-398-11 DISC DETECTION (A) BOARD		333	X-4945-931-1 TRAY (SUB NO. 5) ASSY		
	312	1-452-719-11 MAGNET ASSY		334	X-4945-928-1 TRAY (SUB NO. 4) ASSY		
	313	4-964-492-01 BASE (MAGNET), FITTING		335	X-4945-927-1 TRAY (SUB NO. 3) ASST		
	314	3-531-576-11 RIVET		336	X-4945-926-1 TRAY (SUB NO. 2) ASSY		
	315	4-972-861-01 ROPE		337	X-4944-823-1 TRAY (SUB NO. 1) ASSY		
	316	4-972-862-02 GUIDE (ROPE)		338	4-933-134-01 SCREW (+PTPHW M2.6×6)		
	317	4-972-863-01 SPRING (ROPE), TENSION		* 339	4-967-859-01 CUSHION		
*	318	4-964-460-03 LEVER (STOCK)		340	3-701-439-21 WASHER		
*	319	1-651-392-11 MID SW BOARD		341	4-951-620-01 SCREW (2.6×8), +BVTP		
	320	4-964-455-01 SLIDER (SELECTION)		342	4-964-461-02 HOLDER (SENSOR)		
	321	X-4944-659-1 LEVER (GOOSENECK) ASSY		M502	X-4944-463-1 MOTOR ASSY (TRAY)		
	322	4-964-463-02 GEAR (TRAY R)					

7-8. CD MECHANISM SECTION-3
(BU-5BD19)



The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-951-620-11	SCREW (2.6×10), +BVTP		356	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
* 352	A-4673-402-A	BD BOARD, COMPLETE		357	4-917-567-31	GEAR (M)	
353	4-917-565-01	SHAFT, SLED		358	4-917-564-01	GEAR (P), FLATNESS	
354	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
$\triangle$ 355	8-848-367-11	DEVICE, OPTICAL KSS-213B/K-N		M102	X-4917-504-1	MOTOR ASSY (SLED)	

SECTION 8

ELECTRICAL PARTS LIST

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable

- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, $u : \mu$, for example :
 $uA : \mu A, \dots, uPA : \mu PA, \dots$
 $uPB : \mu PB, \dots, uPC : \mu PC, \dots$
 $uPD : \mu PD, \dots$
- CAPACITORS
 $uF : \mu F$
- COILS
 $uH : \mu H$

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark		
*	A-4673-402-A	BD BOARD, COMPLETE *****			
		< CAPACITOR >			
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V
C102	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C105	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C106	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C107	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C113	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C118	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C119	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C120	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C121	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C123	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C127	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C129	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C131	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C132	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C133	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C134	1-164-346-11	CERAMIC CHIP	1uF		16V
C135	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C136	1-164-005-11	CERAMIC CHIP	0.47uF		25V

Ref. No.	Part No.	Description	Remark		
C137	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C139	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C140	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C141	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C142	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C146	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C147	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C148	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C149	1-164-346-11	CERAMIC CHIP	1uF		16V
C153	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
< CONNECTOR >					
CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P			
CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P			
< IC >					
IC101	8-752-069-56	IC CXA1782BQ			
IC102	8-759-291-06	IC BA6397FP			
IC103	8-752-372-94	IC CXD2507AQ			
IC104	8-759-185-29	IC PCM1710U-B			
< TRANSISTOR >					
Q101	8-729-010-08	TRANSISTOR	MSB710-R		
Q102	8-729-424-08	TRANSISTOR	UN2111		
Q103	8-729-421-22	TRANSISTOR	UN2211		
< RESISTOR >					
R102	1-216-001-00	METAL CHIP	10	5%	1/10W
R103	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R104	1-216-097-00	METAL CHIP	100K	5%	1/10W
R105	1-216-089-00	METAL CHIP	47K	5%	1/10W
R106	1-216-089-00	METAL CHIP	47K	5%	1/10W
R107	1-216-089-00	METAL CHIP	47K	5%	1/10W
R108	1-216-089-00	METAL CHIP	47K	5%	1/10W
R109	1-216-097-00	METAL CHIP	100K	5%	1/10W
R112	1-216-077-00	METAL CHIP	15K	5%	1/10W
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W

BD	CD CONNECTOR
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Ref. No.	Part No.	Description	Remark
R114	1-216-101-00	METAL CHIP	150K 5% 1/10W
R115	1-216-101-00	METAL CHIP	150K 5% 1/10W
R116	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R117	1-216-093-00	METAL CHIP	68K 5% 1/10W
R118	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R119	1-216-121-00	METAL CHIP	1M 5% 1/10W
R120	1-216-089-00	METAL CHIP	47K 5% 1/10W
R121	1-216-114-00	METAL GLAZE	510K 5% 1/10W
R122	1-216-097-00	METAL CHIP	100K 5% 1/10W
R123	1-216-099-00	METAL CHIP	120K 5% 1/10W
R124	1-216-000-00	METAL CHIP	56K 5% 1/10W
R125	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R126	1-216-063-00	METAL CHIP	3.9K 5% 1/10W
R127	1-216-089-00	METAL CHIP	47K 5% 1/10W
R128	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R129	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R130	1-216-079-00	METAL CHIP	18K 5% 1/10W
R131	1-216-079-00	METAL CHIP	18K 5% 1/10W
R132	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R133	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R134	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R135	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R136	1-216-073-00	METAL CHIP	10K 5% 1/10W
R137	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R138	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R139	1-216-033-00	METAL CHIP	220 5% 1/10W
R140	1-216-081-00	METAL CHIP	22K 5% 1/10W
R141	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R142	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R143	1-216-121-00	METAL CHIP	1M 5% 1/10W
R144	1-216-073-00	METAL CHIP	10K 5% 1/10W
R145	1-216-097-00	METAL CHIP	100K 5% 1/10W
R146	1-216-097-00	METAL CHIP	100K 5% 1/10W
R147	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R148	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R149	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R150	1-216-037-00	METAL CHIP	330 5% 1/10W
R151	1-216-037-00	METAL CHIP	330 5% 1/10W
R152	1-216-037-00	METAL CHIP	330 5% 1/10W
R153	1-216-089-00	METAL CHIP	47K 5% 1/10W
R154	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R156	1-216-081-00	METAL CHIP	22K 5% 1/10W
R157	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R158	1-216-001-00	METAL CHIP	10 5% 1/10W

< VARIABLE RESISTOR >

RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K (FOCUS BIAS)
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K (FOCUS GAIN)

Ref. No.	Part No.	Description	Remark
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K (TRACKING GAIN)	
		< SWITCH >	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
		< CRYSTAL >	
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)	

*	1-655-392-11	CD CONNECTOR BOARD	

		< CAPACITOR >	
C1501	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1502	1-124-903-11	ELECT	1uF 20% 50V
C1503	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1504	1-164-159-11	CERAMIC	0.1uF 50V
C1505	1-164-159-11	CERAMIC	0.1uF 50V
C1506	1-164-159-11	CERAMIC	0.1uF 50V
C1507	1-164-159-11	CERAMIC	0.1uF 50V
		< CONNECTOR >	
* CN1501	1-568-937-11	PIN, CONNECTOR 10P	
* CN1502	1-568-955-11	PIN, CONNECTOR 6P	
* CN1505	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
CN1506	1-506-468-11	PIN, CONNECTOR 3P	
* CN1508	1-568-951-11	PIN, CONNECTOR 2P	
* CN1515	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
* CN1517	1-573-149-11	SOCKET, CONNECTOR 19P	
* CN1518	1-568-802-21	SOCKET, CONNECTOR 19P	
		< DIODE >	
D1501	8-719-010-29	DIODE UZ-4.3BSB	
D1502	8-719-109-82	DIODE RD4.7ES-B3	
D1503	8-719-013-05	DIODE UZ-6.8BSC-TP	
		< IC >	
IC1501	8-759-277-68	IC LB1648	
IC1502	8-759-000-58	IC MC14093BCP	
		< TRANSISTOR >	
Q1501	8-729-900-80	TRANSISTOR DTC114ES	
Q1502	8-729-900-80	TRANSISTOR DTC114ES	
		< RESISTOR >	
R1501	1-249-411-11	CARBON	330 5% 1/4W
R1502	1-247-807-31	CARBON	100 5% 1/4W

CD CONNECTOR

COUNT SW

DISC DETECTION (A)

DISC DETECTION (B)

H.P

IN SW

MAIN

Ref.No.	Part No.	Description	Remark		
R1503	1-247-807-31	CARBON	100	5%	1/4W
R1504	1-249-417-11	CARBON	1K	5%	1/4W
R1505	1-249-417-11	CARBON	1K	5%	1/4W
R1506	1-247-807-31	CARBON	100	5%	1/4W
R1507	1-247-807-31	CARBON	100	5%	1/4W
R1508	1-249-417-11	CARBON	1K	5%	1/4W
R1509	1-249-417-11	CARBON	1K	5%	1/4W
R1510	1-247-807-31	CARBON	100	5%	1/4W
R1511	1-247-807-31	CARBON	100	5%	1/4W

*	1-651-397-11	COUNT SW BOARD	*****		
		< SWITCH >			
SW502	1-692-193-11	SWITCH, PUSH (1 KEY) (TRAY DOWN)			
SW503	1-572-126-11	SWITCH, PUSH (1 KEY) (COUNT)			

*	1-651-398-11	DISC DETECTION (A) BOARD	*****		
		< DIODE >			
D501	8-719-029-95	DIODE TLN117 (DISC DET)			

*	1-651-399-11	DISC DETECTION (B) BOARD	*****		
		< CONNECTOR >			
* CN510	1-568-941-11	PIN, CONNECTOR 3P			
		< TRANSISTOR >			
Q501	8-729-018-23	TRANSISTOR TPS626 (DISC DET)			
		< RESISTOR >			
R502	1-249-425-11	CARBON	4.7K	5%	1/4W

*	1-655-389-11	H. P BOARD	*****		
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V
C702	1-124-925-11	ELECT	2.2uF	20%	100V
C703	1-162-294-31	CERAMIC	0.001uF	10%	50V
C704	1-162-215-31	CERAMIC	47PF	5%	50V
C705	1-162-290-31	CERAMIC	470PF	10%	50V
C706	1-124-902-00	ELECT	0.47uF	20%	50V
C709	1-126-967-11	ELECT	47uF	20%	16V

Ref.No.	Part No.	Description	Remark		
C710	1-126-967-11	ELECT	47uF	20%	16V
C719	1-164-159-11	CERAMIC	0.1uF		50V
C720	1-164-159-11	CERAMIC	0.1uF		50V
C721	1-124-902-00	ELECT	0.47uF	20%	50V
C722	1-162-215-31	CERAMIC	47PF	5%	50V
C723	1-162-282-31	CERAMIC	100PF	10%	50V
C724	1-164-159-11	CERAMIC	0.1uF		50V
< IC >					
IC701	8-759-634-51	IC M5218AP			
< JACK >					
J701	1-507-854-00	JACK, PHONE(PHONES)			
J702	1-507-854-00	JACK, PHONE(MIX MIC)			
< RESISTOR >					
R701	1-249-429-11	CARBON	10K	5%	1/4W
R702	1-249-417-11	CARBON	1K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-417-11	CARBON	1K	5%	1/4W
R705	1-249-433-11	CARBON	22K	5%	1/4W
R706	1-247-883-00	CARBON	150K	5%	1/4W
R707	1-249-430-11	CARBON	12K	5%	1/4W
R708	1-249-417-11	CARBON	1K	5%	1/4W

*	1-651-395-11	IN SW BOARD	*****		
< CONNECTOR >					
* CN502	1-568-951-11	PIN, CONNECTOR 2P			
< SWITCH >					
SW501	1-692-193-11	SWITCH, PUSH (1 KEY) (LOAD IN)			

*	A-4377-423-A	MAIN BOARD, COMPLETE	*****		
< CAPACITOR >					
C1	1-162-306-11	CERAMIC	0.01uF	30%	16V
C2	1-162-205-31	CERAMIC	18PF	5%	50V
C3	1-162-306-11	CERAMIC	0.01uF	30%	16V
C4	1-162-306-11	CERAMIC	0.01uF	30%	16V
C5	1-126-967-11	ELECT	47uF	20%	16V
C7	1-162-306-11	CERAMIC	0.01uF	30%	16V
C10	1-162-306-11	CERAMIC	0.01uF	30%	16V
C21	1-162-306-11	CERAMIC	0.01uF	30%	16V
C22	1-162-306-11	CERAMIC	0.01uF	30%	16V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C23	1-162-199-31	CERAMIC	10PF	5%	50V	C130	1-162-306-11	CERAMIC	0. 01uF	30%	16V
C24	1-162-199-31	CERAMIC	10PF	5%	50V	C131	1-136-169-00	FILM	0. 22uF	5%	50V
C25	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C132	1-136-169-00	FILM	0. 22uF	5%	50V
C26	1-126-967-11	ELECT	47uF	20%	16V	C133	1-126-964-11	ELECT	10uF	20%	50V
C27	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C134	1-126-964-11	ELECT	10uF	20%	50V
C28	1-126-967-11	ELECT	47uF	20%	16V	C135	1-136-169-00	FILM	0. 22uF	5%	50V
C29	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C136	1-136-169-00	FILM	0. 22uF	5%	50V
C30	1-124-925-11	ELECT	2. 2uF	20%	100V	C137	1-162-306-11	CERAMIC	0. 01uF	30%	16V
C31	1-136-153-00	FILM	0. 01uF	5%	50V	C138	1-136-159-00	FILM	0. 033uF	5%	50V
C32	1-136-165-00	FILM	0. 1uF	5%	50V	C139	1-162-305-11	CERAMIC	0. 0068uF	30%	16V
C33	1-164-159-11	CERAMIC	0. 1uF		50V	C140	1-136-169-00	FILM	0. 22uF	5%	50V
C34	1-162-196-31	CERAMIC	5. 6PF	10%	50V	C141	1-136-161-00	FILM	0. 047uF	5%	50V
C41	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C142	1-161-494-00	CERAMIC	0. 022uF		25V
C42	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C146	1-126-964-11	ELECT	10uF	20%	50V
C43	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C147	1-162-306-11	CERAMIC	0. 01uF	30%	16V
C44	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C148	1-162-600-11	CERAMIC	0. 0047uF	30%	16V
C45	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C149	1-124-925-11	ELECT	2. 2uF	20%	100V
C46	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C150	1-164-159-11	CERAMIC	0. 1uF		50V
C47	1-126-967-11	ELECT	47uF	20%	16V	C151	1-162-286-31	CERAMIC	220PF	10%	50V
C48	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C153	1-162-600-11	CERAMIC	0. 0047uF	30%	16V
C49	1-124-902-00	ELECT	0. 47uF	20%	50V	C154	1-162-600-11	CERAMIC	0. 0047uF	30%	16V
C50	1-124-903-11	ELECT	1uF	20%	50V	C160	1-164-159-11	CERAMIC	0. 1uF		50V
C51	1-124-903-11	ELECT	1uF	20%	50V	C161	1-136-165-00	FILM	0. 1uF	5%	50V
C52	1-126-964-11	ELECT	10uF	20%	50V	C162	1-136-165-00	FILM	0. 1uF	5%	50V
C53	1-126-964-11	ELECT	10uF	20%	50V	C163	1-136-165-00	FILM	0. 1uF	5%	50V
C54	1-126-964-11	ELECT	10uF	20%	50V	C164	1-136-165-00	FILM	0. 1uF	5%	50V
C55	1-126-964-11	ELECT	10uF	20%	50V	C165	1-162-306-11	CERAMIC	0. 01uF	30%	16V
C56	1-126-964-11	ELECT	10uF	20%	50V	C166	1-162-306-11	CERAMIC	0. 01uF	30%	16V
C57	1-162-600-11	CERAMIC	0. 0047uF	30%	16V	C171	1-124-903-11	ELECT	1uF	20%	50V
C58	1-162-600-11	CERAMIC	0. 0047uF	30%	16V	C172	1-124-903-11	ELECT	1uF	20%	50V
C59	1-136-495-11	FILM	0. 068uF	5%	50V	C173	1-126-964-11	ELECT	10uF	20%	50V
C60	1-136-495-11	FILM	0. 068uF	5%	50V	C174	1-126-964-11	ELECT	10uF	20%	50V
C61	1-124-903-11	ELECT	1uF	20%	50V	C181	1-126-964-11	ELECT	10uF	20%	50V
C62	1-162-294-31	CERAMIC	0. 001uF	10%	50V	C182	1-126-964-11	ELECT	10uF	20%	50V
C63	1-162-303-11	CERAMIC	0. 0033uF	30%	16V	C183	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C64	1-126-967-11	ELECT	47uF	20%	16V	C184	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C65	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C185	1-164-159-11	CERAMIC	0. 1uF		50V
C66	1-126-111-11	ELECT	3. 3uF	20%	50V	C196	1-126-964-11	ELECT	10uF	20%	50V
C67	1-126-933-11	ELECT	100uF	20%	10V	C198	1-162-600-11	CERAMIC	0. 0047uF	30%	16V
C68	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C199	1-124-925-11	ELECT	2. 2uF	20%	100V
C101	1-162-286-31	CERAMIC	220PF	10%	50V	C300	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C112	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C303	1-136-165-00	FILM	0. 1uF	5%	50V
C113	1-162-306-11	CERAMIC	0. 01uF	30%	16V	C304	1-162-206-31	CERAMIC	20PF	5%	50V
C124	1-126-964-11	ELECT	10uF	20%	50V	C305	1-162-206-31	CERAMIC	20PF	5%	50V
C125	1-136-161-00	FILM	0. 047uF	5%	50V	C307	1-162-282-31	CERAMIC	100PF	10%	50V
C126	1-136-161-00	FILM	0. 047uF	5%	50V	C314	1-126-926-11	ELECT	1000uF	20%	10V
C127	1-136-169-00	FILM	0. 22uF	5%	50V	C320	1-126-927-11	ELECT	2200uF	20%	10V
C128	1-162-305-11	CERAMIC	0. 0068uF	30%	16V	C321	1-126-964-11	ELECT	10uF	20%	50V
C129	1-136-159-00	FILM	0. 033uF	5%	50V	C380	1-126-964-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C381	1-162-294-31	CERAMIC	0.001uF	10%	50V	C653	1-126-964-11	ELECT	10uF	20%	50V
C383	1-162-290-31	CERAMIC	470PF	10%	50V	C654	1-162-282-31	CERAMIC	100PF	10%	50V
C398	1-162-306-11	CERAMIC	0.01uF	30%	16V	C655	1-162-293-31	CERAMIC	820PF	10%	50V
C401	1-162-286-31	CERAMIC	220PF	10%	50V	C656	1-126-933-11	ELECT	100uF	20%	10V
C402	1-130-479-00	MYLAR	0.0047uF	5%	50V	C657	1-136-157-00	FILM	0.022uF	5%	50V
C403	1-162-303-11	CERAMIC	0.0033uF	30%	16V	C658	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-164-159-11	CERAMIC	0.1uF		50V	C659	1-126-964-11	ELECT	10uF	20%	50V
C406	1-124-903-11	ELECT	1uF	20%	50V	C660	1-164-159-11	CERAMIC	0.1uF		50V
C407	1-124-902-00	ELECT	0.47uF	20%	50V	C661	1-124-925-11	ELECT	2.2uF	20%	100V
C408	1-126-964-11	ELECT	10uF	20%	50V	C662	1-136-601-11	FILM	0.01uF	5%	630V
C409	1-124-464-11	ELECT	0.22uF	20%	50V	C663	1-124-925-11	ELECT	2.2uF	20%	100V
C410	1-162-600-11	CERAMIC	0.0047uF	30%	16V	C664	1-136-153-00	FILM	0.01uF	5%	50V
C411	1-124-903-11	ELECT	1uF	20%	50V	C665	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C420	1-164-159-11	CERAMIC	0.1uF		50V	C666	1-130-478-00	MYLAR	0.0039uF	5%	50V
C422	1-126-933-11	ELECT	100uF	20%	10V	C667	1-130-478-00	MYLAR	0.0039uF	5%	50V
C423	1-126-933-11	ELECT	100uF	20%	10V	C668	1-164-159-11	CERAMIC	0.1uF		50V
C430	1-126-964-11	ELECT	10uF	20%	50V	C669	1-126-934-11	ELECT	220uF	20%	16V
C431	1-126-964-11	ELECT	10uF	20%	50V	C680	1-126-933-11	ELECT	100uF	20%	16V
C451	1-162-286-31	CERAMIC	220PF	10%	50V	C681	1-126-933-11	ELECT	100uF	20%	16V
C452	1-130-479-00	MYLAR	0.0047uF	5%	50V	C682	1-162-306-11	CERAMIC	0.01uF	30%	16V
C453	1-162-303-11	CERAMIC	0.0033uF	30%	16V	C683	1-162-306-11	CERAMIC	0.01uF	30%	16V
C454	1-164-159-11	CERAMIC	0.1uF		50V	C801	1-137-399-11	FILM	0.1uF	10%	100V
C456	1-124-903-11	ELECT	1uF	20%	50V	C802	1-137-399-11	FILM	0.1uF	10%	100V
C457	1-124-902-00	ELECT	0.47uF	20%	50V	C803	1-126-974-11	ELECT	3300uF	20%	50V
C458	1-126-964-11	ELECT	10uF	20%	50V	C804	1-126-974-11	ELECT	3300uF	20%	50V
C459	1-124-464-11	ELECT	0.22uF	20%	50V	C805	1-124-122-11	ELECT	100uF	20%	50V
C460	1-162-600-11	CERAMIC	0.0047uF	30%	16V	C806	1-124-122-11	ELECT	100uF	20%	50V
C461	1-124-903-11	ELECT	1uF	20%	50V	C807	1-136-165-00	FILM	0.1uF	5%	50V
C601	1-162-292-31	CERAMIC	680PF	10%	50V	C808	1-126-947-11	ELECT	47uF	20%	35V
C602	1-136-157-00	FILM	0.022uF	5%	50V	C809	1-126-936-11	ELECT	3300uF	20%	16V
C603	1-126-964-11	ELECT	10uF	20%	50V	C810	1-126-943-11	ELECT	2200uF	20%	25V
C604	1-162-282-31	CERAMIC	100PF	10%	50V	C811	1-126-936-11	ELECT	3300uF	20%	16V
C605	1-162-293-31	CERAMIC	820PF	10%	50V	C812	1-126-952-11	ELECT	1000uF	20%	16V
C606	1-126-933-11	ELECT	100uF	20%	10V	C813	1-136-165-00	FILM	0.1uF	5%	50V
C607	1-136-157-00	FILM	0.022uF	5%	50V	C814	1-136-165-00	FILM	0.1uF	5%	50V
C608	1-162-282-31	CERAMIC	100PF	10%	50V	C815	1-126-933-11	ELECT	100uF	20%	10V
C609	1-126-964-11	ELECT	10uF	20%	50V	C824	1-126-933-11	ELECT	100uF	20%	10V
C620	1-162-209-31	CERAMIC	27PF	5%	50V	C825	1-126-933-11	ELECT	100uF	20%	10V
C621	1-162-279-31	CERAMIC	75PF	10%	50V	C826	1-126-916-11	ELECT	1000uF	20%	6.3V
C622	1-162-288-31	CERAMIC	330PF	10%	50V	C827	1-126-925-11	ELECT	470uF	20%	10V
C623	1-162-283-31	CERAMIC	120PF	10%	50V	C829	1-126-934-11	ELECT	220uF	20%	16V
C624	1-164-159-11	CERAMIC	0.1uF		50V	C830	1-124-925-11	ELECT	2.2uF	20%	100V
C625	1-164-159-11	CERAMIC	0.1uF		50V	C831	1-126-964-11	ELECT	10uF	20%	50V
C630	1-162-209-31	CERAMIC	27PF	5%	50V	C832	1-126-964-11	ELECT	10uF	20%	50V
C631	1-162-279-31	CERAMIC	75PF	10%	50V	C833	1-128-551-11	ELECT	22uF	20%	50V
C632	1-162-288-31	CERAMIC	330PF	10%	50V	C834	1-136-165-00	FILM	0.1uF	5%	50V
C633	1-162-283-31	CERAMIC	120PF	10%	50V	C835	1-126-933-11	ELECT	100uF	20%	10V
C651	1-162-292-31	CERAMIC	680PF	10%	50V	C838	1-126-933-11	ELECT	100uF	20%	10V
C652	1-136-157-00	FILM	0.022uF	5%	50V	C840	1-126-967-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description	Remark		
C9001	1-162-306-11	CERAMIC	0.01uF	30%	16V
C9003	1-162-282-31	CERAMIC	100PF	10%	50V
C9004	1-162-306-11	CERAMIC	0.01uF	30%	16V
C9005	1-162-306-11	CERAMIC	0.01uF	30%	16V
CD107	1-162-294-31	CERAMIC	0.001uF	10%	50V
CD110	1-162-294-31	CERAMIC	0.001uF	10%	50V
< FILTER >					
CF1	1-567-389-11	FILTER, CERAMIC			
CF3	1-567-389-11	FILTER, CERAMIC			
< CONNECTOR >					
CN101	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
CN103	1-506-469-11	PIN, CONNECTOR 4P			
* CN105	1-568-832-11	SOCKET, CONNECTOR 13P			
CN111	1-568-802-11	SOCKET, CONNECTOR 19P			
* CN401	1-568-449-11	HOUSING, CONNECTOR (PC BOARD)3P			
* CN402	1-568-449-11	HOUSING, CONNECTOR (PC BOARD)3P			
CN601	1-564-506-11	PLUG, CONNECTOR 3P			
* CN602	1-564-509-11	PLUG, CONNECTOR 6P			
CN603	1-564-505-11	PLUG, CONNECTOR 2P			
* CN604	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
< DIODE >					
D21	8-719-933-33	DIODE	HZS6A1L		
D41	8-719-987-63	DIODE	1N4148M		
D102	8-719-987-63	DIODE	1N4148M		
D103	8-719-987-63	DIODE	1N4148M		
D104	8-719-987-63	DIODE	1N4148M		
D105	8-719-987-63	DIODE	1N4148M		
D106	8-719-210-21	DIODE	11EQS04		
D108	8-719-987-63	DIODE	1N4148M		
D109	8-719-987-63	DIODE	1N4148M		
D301	8-719-024-99	DIODE	11ES2-NTA2B		
D302	8-719-987-63	DIODE	1N4148M		
D304	8-719-987-63	DIODE	1N4148M		
D401	8-719-987-63	DIODE	1N4148M		
D601	8-719-987-63	DIODE	1N4148M		
D621	8-719-987-63	DIODE	1N4148M		
D622	8-719-987-63	DIODE	1N4148M		
D623	8-719-987-63	DIODE	1N4148M		
D624	8-719-987-63	DIODE	1N4148M		
D801	8-719-987-63	DIODE	1N4148M		
D802	8-719-987-63	DIODE	1N4148M		
D803	8-719-025-03	DIODE	RBA-402-SL		
D804	8-719-024-99	DIODE	11ES2-NTA2B		
D805	8-719-024-99	DIODE	11ES2-NTA2B		
D806	8-719-934-18	DIODE	HZS27-2L		
D807	8-719-024-99	DIODE	11ES2-NTA2B		

Ref.No.	Part No.	Description	Remark
D808	8-719-024-99	DIODE	11ES2-NTA2B
D809	8-719-987-63	DIODE	1N4148M
D811	8-719-024-99	DIODE	11ES2-NTA2B
D812	8-719-024-99	DIODE	11ES2-NTA2B
D813	8-719-024-99	DIODE	11ES2-NTA2B
D814	8-719-024-99	DIODE	11ES2-NTA2B
D815	8-719-987-63	DIODE	1N4148M
D819	8-719-987-63	DIODE	1N4148M
D823	8-719-987-63	DIODE	1N4148M
D824	8-719-024-99	DIODE	11ES2-NTA2B
< FRONT END >			
FE1	1-465-673-11	FRONT END (2 BAND)	
FE2	1-239-260-11	ENCAPSULATED COMPONENT	
< IC >			
IC21	8-759-288-54	IC	LC72130
IC41	8-759-176-03	IC	LA1835
IC101	8-759-333-93	IC	TMP87CP64F-6254
IC102	8-759-000-48	IC	MC14052BCP
IC107	8-759-634-51	IC	M5218AP
IC108	8-759-291-98	IC	M62423FP
IC109	8-759-281-42	IC	TC9210P
IC301	8-759-916-14	IC	SN74HC04AN
IC401	8-759-289-38	IC	HA12195NT
IC601	8-759-261-93	IC	NJM4580LD
IC602	8-759-261-93	IC	NJM4580LD
IC603	8-759-143-54	IC	uPC1330HA
IC801	8-759-111-68	IC	uPC1237HA
IC802	8-759-231-53	IC	TA7805S
IC803	8-759-231-58	IC	TA7812S
IC804	8-759-288-53	IC	LA5617
IC805	8-759-165-80	IC	PST600C-T
IC806	8-759-604-86	IC	M5F7807
< IFT >			
IFT41	1-404-853-11	TRANSFORMER, IF (CERAMIC FILTER)	
< JACK >			
* J101	1-569-130-11	JACK, PIN 2P (AUX IN)	
< COIL >			
L41	1-407-500-00	INDUCTOR	4.7mH
L601	1-408-429-00	INDUCTOR	470uH
L620	1-410-780-11	INDUCTOR	27mH
L630	1-410-780-11	INDUCTOR	27mH
L9001	1-410-521-11	INDUCTOR	100uH
L9002	1-412-473-21	INDUCTOR	0uH

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L9003	1-412-473-21	INDUCTOR	0uH	R22	1-249-417-11	CARBON	1K 5% 1/4W
L9004	1-412-473-21	INDUCTOR	0uH	R23	1-249-417-11	CARBON	1K 5% 1/4W
L9005	1-412-473-21	INDUCTOR	0uH	R24	1-249-417-11	CARBON	1K 5% 1/4W
L9006	1-412-473-21	INDUCTOR	0uH	R25	1-249-425-11	CARBON	4.7K 5% 1/4W
				R26	1-249-435-11	CARBON	33K 5% 1/4W
< FILTER >							
LPF41	1-239-845-11	FILTER, LOW PASS		R27	1-249-429-11	CARBON	10K 5% 1/4W
LPF42	1-239-845-11	FILTER, LOW PASS		R28	1-249-417-11	CARBON	1K 5% 1/4W
				R29	1-249-423-11	CARBON	3.3K 5% 1/4W
< TRANSISTOR >				R30	1-247-807-31	CARBON	100 5% 1/4W
				R31	1-247-807-31	CARBON	100 5% 1/4W
Q1	8-729-230-99	TRANSISTOR	2SC2669-OY	R32	1-249-421-11	CARBON	2.2K 5% 1/4W
Q2	8-729-230-99	TRANSISTOR	2SC2669-OY	R33	1-249-425-11	CARBON	4.7K 5% 1/4W
Q3	8-729-422-57	TRANSISTOR	UN4111	R34	1-249-425-11	CARBON	4.7K 5% 1/4W
Q107	8-729-900-80	TRANSISTOR	DTC114ES	R35	1-249-425-11	CARBON	4.7K 5% 1/4W
Q108	8-729-900-80	TRANSISTOR	DTC114ES	R36	1-247-807-31	CARBON	100 5% 1/4W
Q170	8-729-422-57	TRANSISTOR	UN4111	R37	1-249-429-11	CARBON	10K 5% 1/4W
Q171	8-729-141-26	TRANSISTOR	2SC3622A-LK	R38	1-249-437-11	CARBON	47K 5% 1/4W
Q172	8-729-141-26	TRANSISTOR	2SC3622A-LK	R41	1-249-437-11	CARBON	47K 5% 1/4W
Q173	8-729-119-78	TRANSISTOR	2SC2785-HFE	R42	1-249-423-11	CARBON	3.3K 5% 1/4W
Q174	8-729-119-78	TRANSISTOR	2SC2785-HFE	R43	1-249-442-11	CARBON	510 5% 1/4W
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE	R44	1-247-807-31	CARBON	100 5% 1/4W
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE	R45	1-247-842-11	CARBON	3K 5% 1/4W
Q403	8-729-900-65	TRANSISTOR	DTA144ES	R46	1-249-429-11	CARBON	10K 5% 1/4W
Q451	8-729-119-78	TRANSISTOR	2SC2785-HFE	R47	1-249-441-11	CARBON	100K 5% 1/4W
Q601	8-729-900-80	TRANSISTOR	DTC114ES	R48	1-249-423-11	CARBON	3.3K 5% 1/4W
Q602	8-729-119-78	TRANSISTOR	2SC2785-HFE	R49	1-249-423-11	CARBON	3.3K 5% 1/4W
Q660	8-729-111-29	TRANSISTOR	2SD1616A-K	R50	1-249-426-11	CARBON	5.6K 5% 1/4W
Q661	8-729-111-29	TRANSISTOR	2SD1616A-K	R51	1-249-426-11	CARBON	5.6K 5% 1/4W
Q662	8-729-119-76	TRANSISTOR	2SA1175-HFE	R52	1-249-435-11	CARBON	33K 5% 1/4W
Q663	8-729-119-78	TRANSISTOR	2SC2785-HFE	R53	1-249-429-11	CARBON	10K 5% 1/4W
Q802	8-729-900-89	TRANSISTOR	DTC144ES	R55	1-249-399-11	CARBON	33 5% 1/4W
Q807	8-729-900-89	TRANSISTOR	DTC144ES	R56	1-249-401-11	CARBON	47 5% 1/4W
Q808	8-729-140-04	TRANSISTOR	2SB1116A-L	R101	1-249-417-11	CARBON	1K 5% 1/4W
Q809	8-729-900-89	TRANSISTOR	DTC144ES	R111	1-249-429-11	CARBON	10K 5% 1/4W
Q810	8-729-140-04	TRANSISTOR	2SB1116A-L	R112	1-249-429-11	CARBON	10K 5% 1/4W
Q811	8-729-140-04	TRANSISTOR	2SB1116A-L	R128	1-249-441-11	CARBON	100K 5% 1/4W
Q812	8-729-422-57	TRANSISTOR	UN4111	R135	1-247-903-00	CARBON	1M 5% 1/4W
Q813	8-729-111-29	TRANSISTOR	2SD1616A-K	R136	1-249-417-11	CARBON	1K 5% 1/4W
				R137	1-249-417-11	CARBON	1K 5% 1/4W
				R140	1-249-441-11	CARBON	100K 5% 1/4W
< RESISTOR >							
R4	1-249-411-11	CARBON	330 5% 1/4W	R144	1-249-415-11	CARBON	680 5% 1/4W
R6	1-249-413-11	CARBON	470 5% 1/4W	R145	1-249-417-11	CARBON	1K 5% 1/4W
R7	1-249-411-11	CARBON	330 5% 1/4W	R148	1-249-435-11	CARBON	33K 5% 1/4W
R8	1-249-432-11	CARBON	18K 5% 1/4W	R149	1-249-441-11	CARBON	100K 5% 1/4W
R9	1-249-434-11	CARBON	27K 5% 1/4W	R150	1-249-421-11	CARBON	2.2K 5% 1/4W
R10	1-249-411-11	CARBON	330 5% 1/4W	R151	1-249-417-11	CARBON	1K 5% 1/4W
R15	1-249-414-11	CARBON	560 5% 1/4W	R154	1-249-441-11	CARBON	100K 5% 1/4W
R17	1-247-807-31	CARBON	100 5% 1/4W	R155	1-249-441-11	CARBON	100K 5% 1/4W
R21	1-249-417-11	CARBON	1K 5% 1/4W	R156	1-249-429-11	CARBON	10K 5% 1/4W

Ref. No.	Part No.	Description	Remark		
R157	1-249-429-11	CARBON	10K	5%	1/4W
R158	1-249-433-11	CARBON	22K	5%	1/4W
R159	1-249-433-11	CARBON	22K	5%	1/4W
R160	1-249-429-11	CARBON	10K	5%	1/4W
R161	1-249-429-11	CARBON	10K	5%	1/4W
R162	1-247-895-00	CARBON	470K	5%	1/4W
R163	1-247-895-00	CARBON	470K	5%	1/4W
R164	1-249-419-11	CARBON	1.5K	5%	1/4W
R165	1-249-419-11	CARBON	1.5K	5%	1/4W
R168	1-249-425-11	CARBON	4.7K	5%	1/4W
R169	1-249-425-11	CARBON	4.7K	5%	1/4W
R170	1-249-441-11	CARBON	100K	5%	1/4W
R171	1-249-425-11	CARBON	4.7K	5%	1/4W
R172	1-249-421-11	CARBON	2.2K	5%	1/4W
R173	1-249-429-11	CARBON	10K	5%	1/4W
R174	1-249-425-11	CARBON	4.7K	5%	1/4W
R175	1-249-421-11	CARBON	2.2K	5%	1/4W
R176	1-249-429-11	CARBON	10K	5%	1/4W
R178	1-249-423-11	CARBON	3.3K	5%	1/4W
R180	1-249-441-11	CARBON	100K	5%	1/4W
R181	1-249-429-11	CARBON	10K	5%	1/4W
R182	1-249-429-11	CARBON	10K	5%	1/4W
R183	1-249-413-11	CARBON	470	5%	1/4W
R184	1-247-903-00	CARBON	1M	5%	1/4W
R185	1-247-903-00	CARBON	1M	5%	1/4W
R188	1-249-423-11	CARBON	3.3K	5%	1/4W
R190	1-249-441-11	CARBON	100K	5%	1/4W
R194	1-249-415-11	CARBON	680	5%	1/4W
R195	1-249-417-11	CARBON	1K	5%	1/4W
R198	1-249-435-11	CARBON	33K	5%	1/4W
R199	1-249-441-11	CARBON	100K	5%	1/4W
R300	1-249-429-11	CARBON	10K	5%	1/4W
R301	1-249-429-11	CARBON	10K	5%	1/4W
R304	1-249-437-11	CARBON	47K	5%	1/4W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-436-11	CARBON	39K	5%	1/4W
R307	1-249-429-11	CARBON	10K	5%	1/4W
R308	1-247-866-11	CARBON	30K	5%	1/4W
R309	1-247-807-31	CARBON	100	5%	1/4W
R310	1-247-807-31	CARBON	100	5%	1/4W
R311	1-247-807-31	CARBON	100	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R313	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-807-31	CARBON	100	5%	1/4W
R315	1-247-807-31	CARBON	100	5%	1/4W
R316	1-249-437-11	CARBON	47K	5%	1/4W
R317	1-249-433-11	CARBON	22K	5%	1/4W
R318	1-249-425-11	CARBON	4.7K	5%	1/4W
R319	1-249-425-11	CARBON	4.7K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R320	1-249-425-11	CARBON	4.7K	5%	1/4W
R321	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-429-11	CARBON	10K	5%	1/4W
R323	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-249-429-11	CARBON	10K	5%	1/4W
R326	1-249-413-11	CARBON	470	5%	1/4W
R327	1-249-413-11	CARBON	470	5%	1/4W
R328	1-249-413-11	CARBON	470	5%	1/4W
R329	1-249-413-11	CARBON	470	5%	1/4W
R330	1-249-429-11	CARBON	10K	5%	1/4W
R331	1-249-429-11	CARBON	10K	5%	1/4W
R332	1-249-429-11	CARBON	10K	5%	1/4W
R333	1-249-423-11	CARBON	3.3K	5%	1/4W
R334	1-249-429-11	CARBON	10K	5%	1/4W
R335	1-249-429-11	CARBON	10K	5%	1/4W
R336	1-249-413-11	CARBON	470	5%	1/4W
R337	1-249-413-11	CARBON	470	5%	1/4W
R338	1-247-807-31	CARBON	100	5%	1/4W
R339	1-247-807-31	CARBON	100	5%	1/4W
R340	1-247-807-31	CARBON	100	5%	1/4W
R341	1-247-807-31	CARBON	100	5%	1/4W
R342	1-247-807-31	CARBON	100	5%	1/4W
R343	1-247-807-31	CARBON	100	5%	1/4W
R344	1-247-807-31	CARBON	100	5%	1/4W
R345	1-247-807-31	CARBON	100	5%	1/4W
R346	1-247-807-31	CARBON	100	5%	1/4W
R347	1-247-807-31	CARBON	100	5%	1/4W
R348	1-249-413-11	CARBON	470	5%	1/4W
R349	1-249-413-11	CARBON	470	5%	1/4W
R364	1-249-425-11	CARBON	4.7K	5%	1/4W
R365	1-249-425-11	CARBON	4.7K	5%	1/4W
R366	1-249-425-11	CARBON	4.7K	5%	1/4W
R375	1-249-418-11	CARBON	1.2K	5%	1/4W
R376	1-249-435-11	CARBON	33K	5%	1/4W
R378	1-249-435-11	CARBON	33K	5%	1/4W
R379	1-249-429-11	CARBON	10K	5%	1/4W
R380	1-249-429-11	CARBON	10K	5%	1/4W
R388	1-249-425-11	CARBON	4.7K	5%	1/4W
R392	1-247-807-31	CARBON	100	5%	1/4W
R393	1-247-807-31	CARBON	100	5%	1/4W
R394	1-247-807-31	CARBON	100	5%	1/4W
R397	1-249-425-11	CARBON	4.7K	5%	1/4W
R398	1-249-425-11	CARBON	4.7K	5%	1/4W
R399	1-247-807-31	CARBON	100	5%	1/4W
R401	1-249-430-11	CARBON	12K	5%	1/4W
R402	1-249-431-11	CARBON	15K	5%	1/4W
R403	1-249-427-11	CARBON	6.8K	5%	1/4W
R404	1-249-421-11	CARBON	2.2K	5%	1/4W
R405	1-249-419-11	CARBON	1.5K	5%	1/4W

MAIN

Ref. No.	Part No.	Description	Remark		
R406	1-249-417-11	CARBON	1K	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R408	1-249-417-11	CARBON	1K	5%	1/4W
R409	1-249-433-11	CARBON	22K	5%	1/4W
R420	1-249-432-11	CARBON	18K	5%	1/4W
R421	1-249-429-11	CARBON	10K	5%	1/4W
R422	1-249-429-11	CARBON	10K	5%	1/4W
R423	1-249-437-11	CARBON	47K	5%	1/4W
R424	1-249-429-11	CARBON	10K	5%	1/4W
R425	1-249-429-11	CARBON	10K	5%	1/4W
R426	1-249-429-11	CARBON	10K	5%	1/4W
R427	1-249-429-11	CARBON	10K	5%	1/4W
R428	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-429-11	CARBON	10K	5%	1/4W
R430	1-247-866-11	CARBON	30K	5%	1/4W
R431	1-247-882-11	CARBON	130K	5%	1/4W
R451	1-249-430-11	CARBON	12K	5%	1/4W
R452	1-249-431-11	CARBON	15K	5%	1/4W
R453	1-249-427-11	CARBON	6.8K	5%	1/4W
R454	1-249-421-11	CARBON	2.2K	5%	1/4W
R455	1-249-419-11	CARBON	1.5K	5%	1/4W
R456	1-249-417-11	CARBON	1K	5%	1/4W
R457	1-249-437-11	CARBON	47K	5%	1/4W
R458	1-249-417-11	CARBON	1K	5%	1/4W
R459	1-249-433-11	CARBON	22K	5%	1/4W
R480	1-247-864-11	CARBON	24K	5%	1/4W
R601	1-247-889-00	CARBON	270K	5%	1/4W
R602	1-249-404-00	CARBON	82	5%	1/4W
R603	1-247-882-11	CARBON	130K	5%	1/4W
R604	1-247-850-11	CARBON	6.2K	5%	1/4W
R605	1-247-889-00	CARBON	270K	5%	1/4W
R606	1-249-404-00	CARBON	82	5%	1/4W
R607	1-249-433-11	CARBON	22K	5%	1/4W
R608	1-247-882-11	CARBON	130K	5%	1/4W
R609	1-247-850-11	CARBON	6.2K	5%	1/4W
R610	1-249-417-11	CARBON	1K	5%	1/4W
R611	1-249-417-11	CARBON	1K	5%	1/4W
R612	1-249-417-11	CARBON	1K	5%	1/4W
R613	1-249-417-11	CARBON	1K	5%	1/4W
R614	1-249-417-11	CARBON	1K	5%	1/4W
R620	1-249-430-11	CARBON	12K	5%	1/4W
R621	1-249-437-11	CARBON	47K	5%	1/4W
R622	1-249-437-11	CARBON	47K	5%	1/4W
R623	1-249-429-11	CARBON	10K	5%	1/4W
R624	1-249-429-11	CARBON	10K	5%	1/4W
R630	1-249-430-11	CARBON	12K	5%	1/4W
R631	1-247-889-00	CARBON	270K	5%	1/4W
R632	1-249-404-00	CARBON	82	5%	1/4W
R633	1-247-882-11	CARBON	130K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R654	1-247-850-11	CARBON	6.2K	5%	1/4W
R655	1-247-889-00	CARBON	270K	5%	1/4W
R656	1-249-404-00	CARBON	82	5%	1/4W
R657	1-249-433-11	CARBON	22K	5%	1/4W
R658	1-247-882-11	CARBON	130K	5%	1/4W
R659	1-247-850-11	CARBON	6.2K	5%	1/4W
R660	1-249-429-11	CARBON	10K	5%	1/4W
R661	1-249-424-11	CARBON	3.9K	5%	1/4W
R662	1-249-389-11	CARBON	4.7	5%	1/4W
R663	1-249-434-11	CARBON	27K	5%	1/4W
R664	1-249-434-11	CARBON	27K	5%	1/4W
R665	1-249-430-11	CARBON	12K	5%	1/4W
R670	1-249-427-11	CARBON	6.8K	5%	1/4W
R671	1-249-418-11	CARBON	1.2K	5%	1/4W
R680	1-249-409-11	CARBON	220	5%	1/4W
R681	1-249-409-11	CARBON	220	5%	1/4W
△R801	1-219-122-91	FUSIBLE	0.33	5%	1/4W F
△R802	1-219-122-91	FUSIBLE	0.33	5%	1/4W F
R803	1-249-429-11	CARBON	10K	5%	1/4W
R804	1-249-429-11	CARBON	10K	5%	1/4W
△R805	1-219-122-91	FUSIBLE	0.33	5%	1/4W F
R806	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W
△R814	1-219-122-91	FUSIBLE	0.33	5%	1/4W F
R820	1-249-421-11	CARBON	2.2K	5%	1/4W
R821	1-249-409-11	CARBON	220	5%	1/4W
R822	1-249-429-11	CARBON	10K	5%	1/4W
R823	1-249-421-11	CARBON	2.2K	5%	1/4W
R825	1-249-441-11	CARBON	100K	5%	1/4W
R826	1-249-397-11	CARBON	22	5%	1/4W
R827	1-249-435-11	CARBON	33K	5%	1/4W
R828	1-249-423-11	CARBON	3.3K	5%	1/4W
R829	1-249-423-11	CARBON	3.3K	5%	1/4W
R830	1-249-409-11	CARBON	220	5%	1/4W
R831	1-249-439-11	CARBON	68K	5%	1/4W
R835	1-249-409-11	CARBON	220	5%	1/4W
R838	1-249-429-11	CARBON	10K	5%	1/4W
R840	1-260-098-11	CARBON	820	5%	1/2W
R841	1-260-098-11	CARBON	820	5%	1/2W
R881	1-249-437-11	CARBON	47K	5%	1/4W
R890	1-260-098-11	CARBON	820	5%	1/2W
R891	1-260-098-11	CARBON	820	5%	1/2W
R944	1-249-417-11	CARBON	1K	5%	1/4W
< VARIABLE RESISTOR >					
RV41	1-241-765-11	RES, ADJ, CARBON 22K (AM TUNED LEVEL)			
RV42	1-241-630-11	RES, ADJ, CARBON 10K (FM TUNED LEVEL)			
RV401	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL, R)			
RV451	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL, L)			

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN	MID SENS	MID SW	OPEN/CLOSE SW	PANEL
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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RV601	1-241-630-11	RES, ADJ, CARBON 10K (PB LEVEL, L)				< SWITCH >	
		(DECK A)		SW504	1-692-193-11	SWITCH, PUSH (1 KEY) (LOAD OUT)	
RV602	1-241-630-11	RES, ADJ, CARBON 10K (PB LEVEL, L)		*****			
		(DECK B)					
RV620	1-241-767-21	RES, ADJ, CARBON 100K (REC BIAS, L)		*	1-651-394-11	OPEN/CLOSE SW BOARD	
RV630	1-241-767-21	RES, ADJ, CARBON 100K (REC BIAS, R)				*****	
RV651	1-241-630-11	RES, ADJ, CARBON 10K (PB LEVEL, R)				< CONNECTOR >	
		(DECK A)					
RV652	1-241-630-11	RES, ADJ, CARBON 10K (PB LEVEL, R)		CN512	1-506-481-11	PIN, CONNECTOR 2P	
		(DECK B)		* CN514	1-568-941-11	PIN, CONNECTOR 3P	
RV670	1-241-762-11	RES, ADJ, CARBON 2.2K (TAPE SPEED)				< RESISTOR >	
		< RELAY >					
RY801	1-515-921-11	RELAY (12V)		R503	1-249-408-11	CARBON 180 5% 1/4W	
		< TRANSFORMER >		R504	1-249-435-11	CARBON 33K 5% 1/4W	
						< SWITCH >	
T601	1-433-349-11	TRANSFORMER, BIAS OSCILLATION		SW505	1-571-300-21	SWITCH, ROTARY (OPEN /CLOSE)	
		< TERMINAL >		*****			
TB101	1-537-240-31	TERMINAL BOARD (CHECKER PIN) (SPEAKER)		*	A-4337-427-A	PANEL BOARD, COMPLETE	
		< TERMINAL >				*****	
						< CAPACITOR >	
TM1	1-537-238-21	TERMINAL BOARD (ANTENNA)					
		< VIBRATOR >		C501	1-124-242-00	ELECT 33uF 20% 25V	
				C502	1-162-282-31	CERAMIC 100PF 10% 50V	
X21	1-578-785-11	VIBRATOR, CRYSTAL (4.5MHz)		C503	1-126-154-11	ELECT 47uF 20% 6.3V	
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)		C504	1-162-306-11	CERAMIC 0.01uF 30% 16V	
X42	1-527-981-00	FILTER, CERAMIC (450kHz)		C505	1-162-306-11	CERAMIC 0.01uF 30% 16V	
X43	1-577-075-11	OSCILLATOR, CERAMIC (19kHz)					
X301	1-579-125-11	VIBRATOR, CERAMIC (8MHz)		C508	1-162-294-31	CERAMIC 0.001uF 10% 50V	
				C509	1-164-159-11	CERAMIC 0.1uF 50V	
X302	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)		C510	1-164-159-11	CERAMIC 0.1uF 50V	
		*****		C550	1-162-306-11	CERAMIC 0.01uF 30% 16V	
						< CONNECTOR >	
*	1-651-393-11	MID SENS BOARD					
		*****		* CN501	1-568-856-11	SOCKET, CONNECTOR 13P	
		< IC >		CN9015	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
				CN9025	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
IC501	8-729-020-74	IC DIODE GP1S24				< DIODE >	

				D505	8-719-032-98	LED SEL5820A (DISC 1)	
*	1-651-392-11	MID SW BOARD		D506	8-719-032-98	LED SEL5820A (DISC 2)	
		*****		D507	8-719-032-98	LED SEL5820A (DISC 3)	
		< CONNECTOR >		D508	8-719-032-98	LED SEL5820A (DISC 4)	
				D509	8-719-032-98	LED SEL5820A (DISC 5)	
CN503	1-506-481-11	PIN, CONNECTOR 2P		D510	8-719-046-38	LED SEL5821A-TH8F (CD)	
				D511	8-719-046-38	LED SEL5821A-TH8F (TUNER)	
				D512	8-719-053-10	LED SEL2910A-D-TP6 (ROCK)	
				D513	8-719-053-10	LED SEL2910A-D-TP6 (POPS)	
				D514	8-719-053-10	LED SEL2910A-D-TP6 (JAZZ)	

PANEL

Ref. No.	Part No.	Description	Remark
D515	8-719-046-38	LED SEL5821A-TH8F (DOLBY NR)	
D522	8-719-053-10	LED SEL2910A-D-TP6 (ROCK)	
D523	8-719-053-10	LED SEL2910A-D-TP6 (POPS)	
D524	8-719-053-10	LED SEL2910A-D-TP6 (JAZZ)	
D529	8-719-014-73	DIODE UZP-5.6BC	
< INDICATOR TUBE >			
FL501	1-517-364-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC501	8-752-862-43	IC CXP82612-006Q	
IC502	8-749-923-43	IC GP1U57XB	
< TRANSISTOR >			
Q501	8-729-422-57	TRANSISTOR UN4111	
Q502	8-729-422-57	TRANSISTOR UN4111	
Q503	8-729-422-57	TRANSISTOR UN4111	
Q504	8-729-422-57	TRANSISTOR UN4111	
Q505	8-729-422-57	TRANSISTOR UN4111	
Q506	8-729-422-57	TRANSISTOR UN4111	
Q507	8-729-422-57	TRANSISTOR UN4111	
Q508	8-729-422-57	TRANSISTOR UN4111	
Q509	8-729-422-57	TRANSISTOR UN4111	
Q510	8-729-422-57	TRANSISTOR UN4111	
Q511	8-729-422-57	TRANSISTOR UN4111	
< RESISTOR >			
R501	1-249-429-11	CARBON 10K 5% 1/4W	
R502	1-249-429-11	CARBON 10K 5% 1/4W	
R503	1-249-429-11	CARBON 10K 5% 1/4W	
R504	1-249-429-11	CARBON 10K 5% 1/4W	
R505	1-249-429-11	CARBON 10K 5% 1/4W	
R506	1-249-429-11	CARBON 10K 5% 1/4W	
R509	1-249-429-11	CARBON 10K 5% 1/4W	
R510	1-249-429-11	CARBON 10K 5% 1/4W	
R511	1-249-419-11	CARBON 1.5K 5% 1/4W	
R512	1-249-407-11	CARBON 150 5% 1/4W	
R513	1-249-410-11	CARBON 270 5% 1/4W	
R514	1-249-408-11	CARBON 180 5% 1/4W	
R515	1-249-409-11	CARBON 220 5% 1/4W	
R516	1-249-411-11	CARBON 330 5% 1/4W	
R517	1-249-413-11	CARBON 470 5% 1/4W	
R518	1-249-414-11	CARBON 560 5% 1/4W	
R519	1-249-416-11	CARBON 820 5% 1/4W	
R520	1-249-418-11	CARBON 1.2K 5% 1/4W	
R521	1-249-420-11	CARBON 1.8K 5% 1/4W	
R524	1-249-419-11	CARBON 1.5K 5% 1/4W	
R525	1-249-407-11	CARBON 150 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R526	1-249-410-11	CARBON 270 5% 1/4W	
R527	1-249-408-11	CARBON 180 5% 1/4W	
R528	1-249-409-11	CARBON 220 5% 1/4W	
R529	1-249-411-11	CARBON 330 5% 1/4W	
R530	1-249-413-11	CARBON 470 5% 1/4W	
R531	1-249-414-11	CARBON 560 5% 1/4W	
R532	1-249-416-11	CARBON 820 5% 1/4W	
R533	1-249-418-11	CARBON 1.2K 5% 1/4W	
R534	1-249-420-11	CARBON 1.8K 5% 1/4W	
R537	1-249-419-11	CARBON 1.5K 5% 1/4W	
R538	1-249-407-11	CARBON 150 5% 1/4W	
R539	1-249-410-11	CARBON 270 5% 1/4W	
R540	1-249-408-11	CARBON 180 5% 1/4W	
R541	1-249-409-11	CARBON 220 5% 1/4W	
R542	1-249-411-11	CARBON 330 5% 1/4W	
R543	1-249-413-11	CARBON 470 5% 1/4W	
R544	1-249-414-11	CARBON 560 5% 1/4W	
R563	1-247-903-00	CARBON 1M 5% 1/4W	
R564	1-247-807-31	CARBON 100 5% 1/4W	
R565	1-247-807-31	CARBON 100 5% 1/4W	
R566	1-247-807-31	CARBON 100 5% 1/4W	
R567	1-247-807-31	CARBON 100 5% 1/4W	
R568	1-247-807-31	CARBON 100 5% 1/4W	
R577	1-249-409-11	CARBON 220 5% 1/4W	
R578	1-249-409-11	CARBON 220 5% 1/4W	
R579	1-249-409-11	CARBON 220 5% 1/4W	
R580	1-249-409-11	CARBON 220 5% 1/4W	
R581	1-249-409-11	CARBON 220 5% 1/4W	
R582	1-249-409-11	CARBON 220 5% 1/4W	
R583	1-249-409-11	CARBON 220 5% 1/4W	
R584	1-249-407-11	CARBON 150 5% 1/4W	
R585	1-249-407-11	CARBON 150 5% 1/4W	
R586	1-249-407-11	CARBON 150 5% 1/4W	
R587	1-249-409-11	CARBON 220 5% 1/4W	
R588	1-249-409-11	CARBON 220 5% 1/4W	
R589	1-249-421-11	CARBON 2.2K 5% 1/4W	
R590	1-247-807-31	CARBON 100 5% 1/4W	
R591	1-247-807-31	CARBON 100 5% 1/4W	
R592	1-247-807-31	CARBON 100 5% 1/4W	
R593	1-249-429-11	CARBON 10K 5% 1/4W	
R594	1-249-409-11	CARBON 220 5% 1/4W	
R601	1-249-407-11	CARBON 150 5% 1/4W	
R602	1-249-407-11	CARBON 150 5% 1/4W	
R603	1-249-407-11	CARBON 150 5% 1/4W	

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

PANEL

POWER 2

LEAF SW-A

LEAF SW-B

Ref.No.	Part No.	Description	Remark
< SWITCH >			
S501	1-467-869-11	ENCODER, ROTARY (VOLUME)	
S503	1-572-184-11	SWITCH, KEYBOARD (TUNER/BAND)	
S504	1-572-184-11	SWITCH, KEYBOARD (FUNCTION)	
S505	1-572-184-11	SWITCH, KEYBOARD (▷)	
S506	1-572-184-11	SWITCH, KEYBOARD (■)	
S507	1-572-184-11	SWITCH, KEYBOARD (≡)	
S508	1-572-184-11	SWITCH, KEYBOARD (DISC SKIP)	
S509	1-572-184-11	SWITCH, KEYBOARD (DISC 5)	
S510	1-572-184-11	SWITCH, KEYBOARD (DISC 4)	
S511	1-572-184-11	SWITCH, KEYBOARD (DISC 3)	
S512	1-572-184-11	SWITCH, KEYBOARD (DISC 2)	
S513	1-572-184-11	SWITCH, KEYBOARD (DISC 1)	
S516	1-572-184-11	SWITCH, KEYBOARD (CONTINUE)	
S517	1-572-184-11	SWITCH, KEYBOARD (SHUFFLE)	
S518	1-572-184-11	SWITCH, KEYBOARD (PROGRAM)	
S519	1-572-184-11	SWITCH, KEYBOARD (TUNING MODE)	
S520	1-572-184-11	SWITCH, KEYBOARD (MONO)	
S521	1-572-184-11	SWITCH, KEYBOARD (TUNER MEMORY)	
S522	1-572-184-11	SWITCH, KEYBOARD (▷ +)	
S523	1-572-184-11	SWITCH, KEYBOARD (- ◁)	
S524	1-572-184-11	SWITCH, KEYBOARD (ENTER/NEXT)	
S525	1-572-184-11	SWITCH, KEYBOARD (DISPLAY)	
S526	1-572-184-11	SWITCH, KEYBOARD (CLOCK SET)	
S529	1-572-184-11	SWITCH, KEYBOARD (SYSTEM POWER)	
S530	1-572-184-11	SWITCH, KEYBOARD (DOLBY NR)	
S531	1-572-184-11	SWITCH, KEYBOARD (KARAOKE PON)	
S532	1-572-184-11	SWITCH, KEYBOARD (DBFB)	
S533	1-572-184-11	SWITCH, KEYBOARD (JAZZ)	
S534	1-572-184-11	SWITCH, KEYBOARD (POPS)	
S535	1-572-184-11	SWITCH, KEYBOARD (ROCK)	
S536	1-572-184-11	SWITCH, KEYBOARD (SLEEP)	
S555	1-572-126-11	SWITCH, PUSH (1 KEY) (5CD PANEL SWITCH)	
< VIBRATOR >			
X501	1-567-819-11	VIBRATOR, CERAMIC (4MHz)	

*	1-655-388-11	POWER 2 BOARD	

< CAPACITOR >			
C971	1-124-925-11	ELECT 2.2uF	20% 100V
C972	1-162-282-31	CERAMIC 100PF	10% 50V
C973	1-162-282-31	CERAMIC 100PF	10% 50V
C975	1-128-551-11	ELECT 22uF	20% 50V
C976	1-126-964-11	ELECT 10uF	20% 50V
C977	1-126-964-11	ELECT 10uF	20% 50V

Ref.No.	Part No.	Description	Remark
C980	1-162-306-11	CERAMIC 0.01uF	30% 16V
C981	1-124-925-11	ELECT 2.2uF	20% 100V
C982	1-162-282-31	CERAMIC 100PF	10% 50V
C983	1-162-282-31	CERAMIC 100PF	10% 50V
C985	1-128-551-11	ELECT 22uF	20% 50V
C986	1-126-964-11	ELECT 10uF	20% 50V
C987	1-126-964-11	ELECT 10uF	20% 50V
C988	1-164-159-11	CERAMIC 0.1uF	50V
C989	1-164-159-11	CERAMIC 0.1uF	50V
C990	1-164-159-11	CERAMIC 0.1uF	50V
C991	1-164-159-11	CERAMIC 0.1uF	50V
< IC >			
IC981	8-759-502-31	IC SI-18751	
IC971	8-759-502-31	IC SI-18751	
< RESISTOR >			
R971	1-247-903-00	CARBON 1M 5%	1/4W
R972	1-249-417-11	CARBON 1K 5%	1/4W
R973	1-249-435-11	CARBON 33K 5%	1/4W
R974	1-249-435-11	CARBON 33K 5%	1/4W
R975	1-249-415-11	CARBON 680 5%	1/4W
R981	1-247-903-00	CARBON 1M 5%	1/4W
R982	1-249-417-11	CARBON 1K 5%	1/4W
R983	1-249-435-11	CARBON 33K 5%	1/4W
R984	1-249-435-11	CARBON 33K 5%	1/4W
R985	1-249-415-11	CARBON 680 5%	1/4W
R986	1-249-393-11	CARBON 10 5%	1/4W
R987	1-249-393-11	CARBON 10 5%	1/4W

*	1-647-784-11	LEAF SW-A BOARD	

< CONNECTOR >			
* CN1001	1-568-943-11	PIN, CONNECTOR 5P	
< SWITCH >			
S1001	1-571-736-11	SWITCH, LEAF (A MOTOR)	
S1002	1-571-736-11	SWITCH, LEAF (A PLAY)	
S1004	1-692-997-11	SWITCH, LEAF (A CrO ₂)	

*	1-647-785-11	LEAF SW-B BOARD	

< CONNECTOR >			
* CN2001	1-568-944-11	PIN, CONNECTOR 6P	

LEAF SW-B**TRANS****TRAY MOTOR****U/D MOTOR**

Ref.No.	Part No.	Description	Remark
		< SWITCH >	
S2001	1-571-736-11	SWITCH, LEAF (B MOTOR)	
S2002	1-571-736-11	SWITCH, LEAF (B PLAY)	
S2003	1-571-736-11	SWITCH, LEAF (B REC)	
S2004	1-692-997-11	SWITCH, LEAF (B CrO ₂)	

*	1-655-390-11	TRANS BOARD	

		< CONNECTOR >	
* CN801	1-564-526-11	PLUG, CONNECTOR 11P	
CN851	1-564-321-00	PIN, CONNECTOR 2P	
		< FUSE >	
△F801	1-576-103-11	FUSE (Tl. 6AL, 125V)	
		< FUSE HOLDER >	
FH801	1-533-293-11	FUSE HOLDER	
FH802	1-533-293-11	FUSE HOLDER	
		< RESISTOR >	
△R800	1-202-725-00	SOLID 3.3M 10% 1/2W	
		< TRANSFORMER >	
△T801	1-472-798-11	TRANSFORMER, POWER	

*	1-651-391-11	TRAY MOTOR BOARD	

		< CAPACITOR >	
C502	1-164-159-11	CERAMIC 0.1uF 50V	

*	1-651-396-11	U/D MOTOR BOARD	

		< CAPACITOR >	
C501	1-164-159-11	CERAMIC 0.1uF 50V	

		MISCELLANEOUS	

10	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
△13	1-690-609-21	CORD, POWER	
70	1-590-036-31	WIRE, FLAT TYPE (13 CORE)	
267	1-769-270-11	WIRE (FLAT TYPE) (19 CORE)	
312	1-452-719-11	MAGNET ASSY	

Ref.No.	Part No.	Description	Remark
△355	8-848-367-11	DEVICE, OPTICAL KSS-213B/K-N	
356	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
△F801	1-576-103-11	FUSE (Tl. 6AL, 125V)	
HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
HP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK A)	

HPR901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M501	X-4660-857-A	MOTOR (U/D) ASSY	
M502	X-4944-463-1	MOTOR ASSY	

M901	X-3362-377-1	MOTOR (WH) ASSY	

ACCESSORIES & PACKING MATERIALS

*	4-972-971-01	CUSHION (FRONT)
*	4-972-972-01	CUSHION (REAR)

HARDWARE LIST

#1	7-685-646-79	SCREW +BVTP 3×8 TYPE2 IT-3
#2	7-685-871-01	SCREW +BVTT 3×6 (S)
#3	7-685-645-79	SCREW +BVTP 3×6 TYPE2 N-S
#4	7-685-647-79	SCREW +BVTP 3×10 TYPE2 N-S
#5	7-685-103-19	SCREW +P 2×5 TYPE2 NON-SLIT

#6	7-621-775-20	SCREW +B 2.6×5
#7	7-685-135-19	SCREW +BTP 2.6×10 TYPE2 N-S
#8	7-623-921-01	RING, RETAINING, CAPSTAN
#9	7-685-133-19	SCREW +P 2.6×6 TYPE2
#10	7-688-001-01	W 2, SMALL

#11	7-621-775-00	SCREW +B 2.6×3
#12	7-685-134-19	SCREW +BTP 2.6×8 TYPE2 N-S
#13	7-621-773-86	SCREW +B 2.6×4
#14	7-621-255-15	SCREW +P 2×3

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Sony Corporation
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Home A&V Products Div.

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Quality Engineering Dept.

HCD-H305G

SONY. SERVICE MANUAL

US Model

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

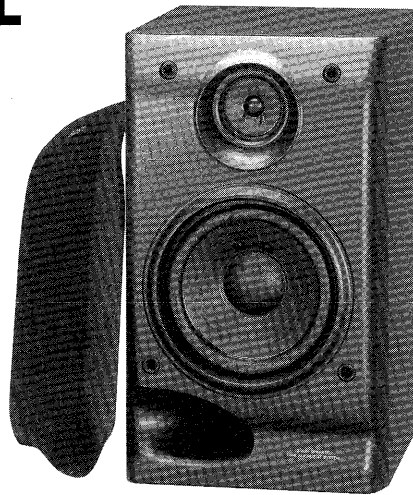
Page	INCORRECT			CORRECT	
	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
56	M501	X-4660-857-A	MOTOR (U/D) ASSY	 <u>A-4660-857-A</u>	MOTOR (U/D) ASSY

(SPM-95064)

SS-H70/H501

SERVICE MANUAL

US Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



This set is the speaker system in
FH-A40K/CX35 and MHC-501/701/G50/G500.

SPECIFICATIONS

Speaker system	2-way, Bass reffer type
Speaker unit	Woofer : 14 cm (5 $\frac{5}{8}$ in.), cone type Tweeter : 5 cm (2 in.), cone type
Sensitivity	87 dm/W/m
Effective frequency range	65 Hz to 20 kHz
Rated impedance	6 ohms
Dimensions	195 × 325 × 250 mm (w/h/d) (7 $\frac{3}{4}$ × 12 $\frac{7}{8}$ × 9 $\frac{7}{8}$ in.)
Mass	Approx. 3.3 kg (7 lb 4 oz.) net per speaker

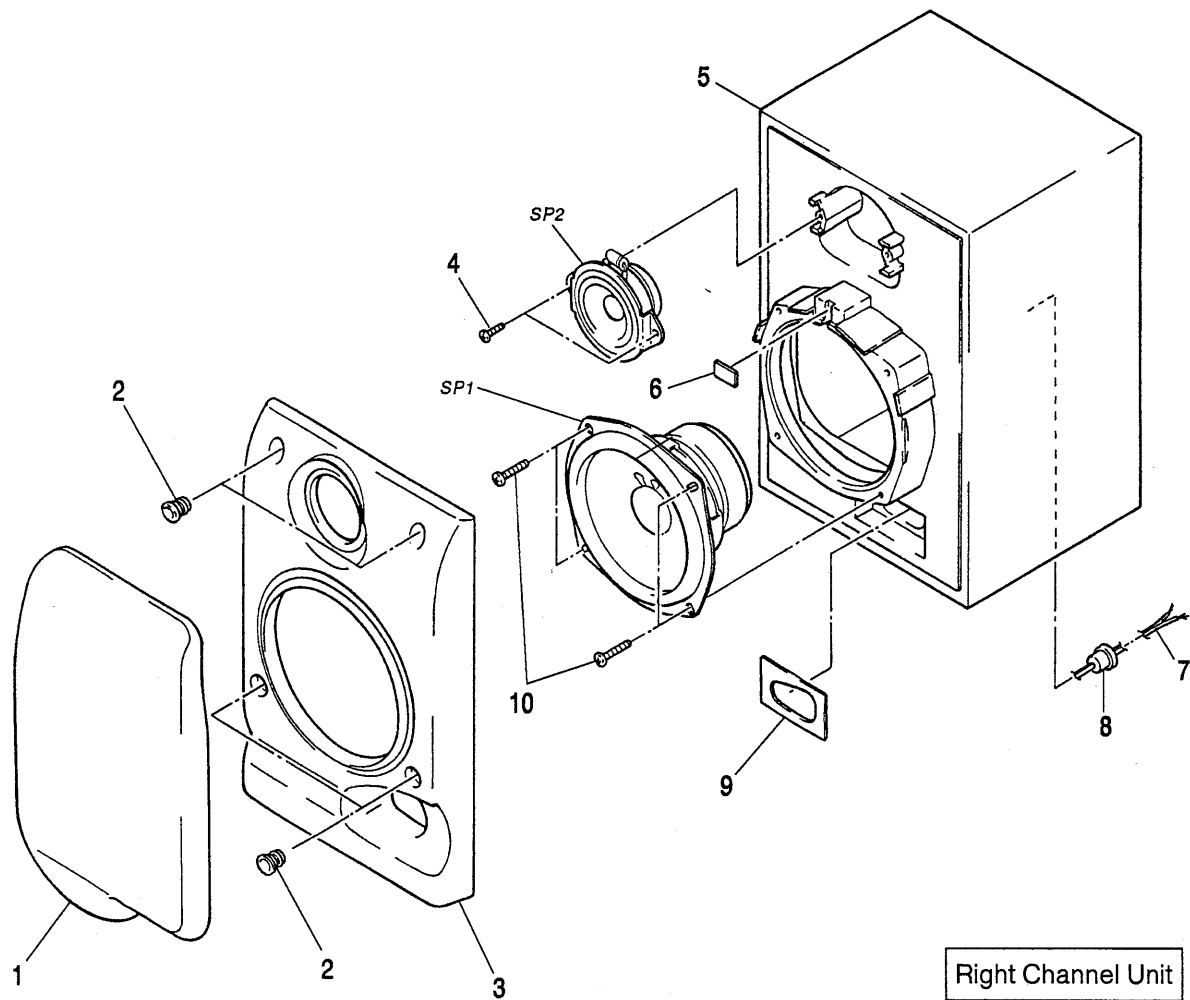
Design and specifications are subject to change without notice.

SPEAKER SYSTEM
SONY®

EXPLODED VIEW AND PARTS LIST

NOTE :

- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref.No.	Part No.	Description	Remark
1	X-4945-493-1	FRAME (L) ASSY, GRILLE	
1	X-4945-494-1	FRAME (R) ASSY, GRILLE	
2	4-951-733-01	CATCHER	
3	4-971-332-01	PANEL (L), FRONT	
3	4-971-329-01	PANEL (R), FRONT	
4	7-685-646-21	SCREW +BVTP 3×8 TYPE 2 SLIT	
* 5	A-4361-275-A	CABINET (L) ASSY, SPEAKER (H70)	
* 5	A-4361-295-A	CABINET (R) ASSY, SPEAKER (H70)	
* 5	A-4361-422-A	CABINET (L) ASSY, SPEAKER (H501)	
* 5	A-4361-424-A	CABINET (R) ASSY, SPEAKER (H501)	
* 6	4-971-211-01	PACKING	
7	1-574-792-11	CORD, SPEAKER	

Ref.No.	Part No.	Description	Remark
8	4-942-138-01	CLAMP	
9	9-911-840-XX	PACKING	
10	4-874-614-11	SCREW +BVTP 3.5×14	
SP1	1-504-825-11	SPEAKER (13CM)	
SP2	1-504-827-11	SPEAKER (5CM)	

ACCESSORIES & PACKING MATERIALS			

	3-798-713-11	MANUAL INSTRUCTION (ENGLISH) (H70)	
*	4-973-845-01	INDIVIDUAL CARTON (H70)	
*	4-971-217-01	CUSHION (H501)	